

# OWNER'S GUIDE

ASSEMBLY • OPERATION • MAINTENANCE • PARTS



(Model 510C Shown With  
Optional Grass Catcher)

## VARIABLE SPEED REAR ENGINE RIDING MOWERS

### Model Numbers

131-510-000  
131-511-000  
131-520-000  
131-521-000  
131-530-000  
131-531-000  
131-550-000  
131-551-000

**Important: Read Safety Rules and Instructions Carefully**



Made  
in  
AMERICA

**WARNING:** This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 360900, Cleveland, Ohio 44136.

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## OPTIONAL ACCESSORIES AVAILABLE

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The following **grass catchers** are available as optional equipment for the riding mowers shown in this manual.

Model 038 for 30" Rear Discharge Deck

Model 063 (requires 435 mounting kit) for 30", 32" & 38" Side Discharge Deck



**WARNING:** The mower should not be operated without the entire grass catcher or chute deflector in place.

**NOTE:** Under normal usage bag material is subject to wear, and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations.

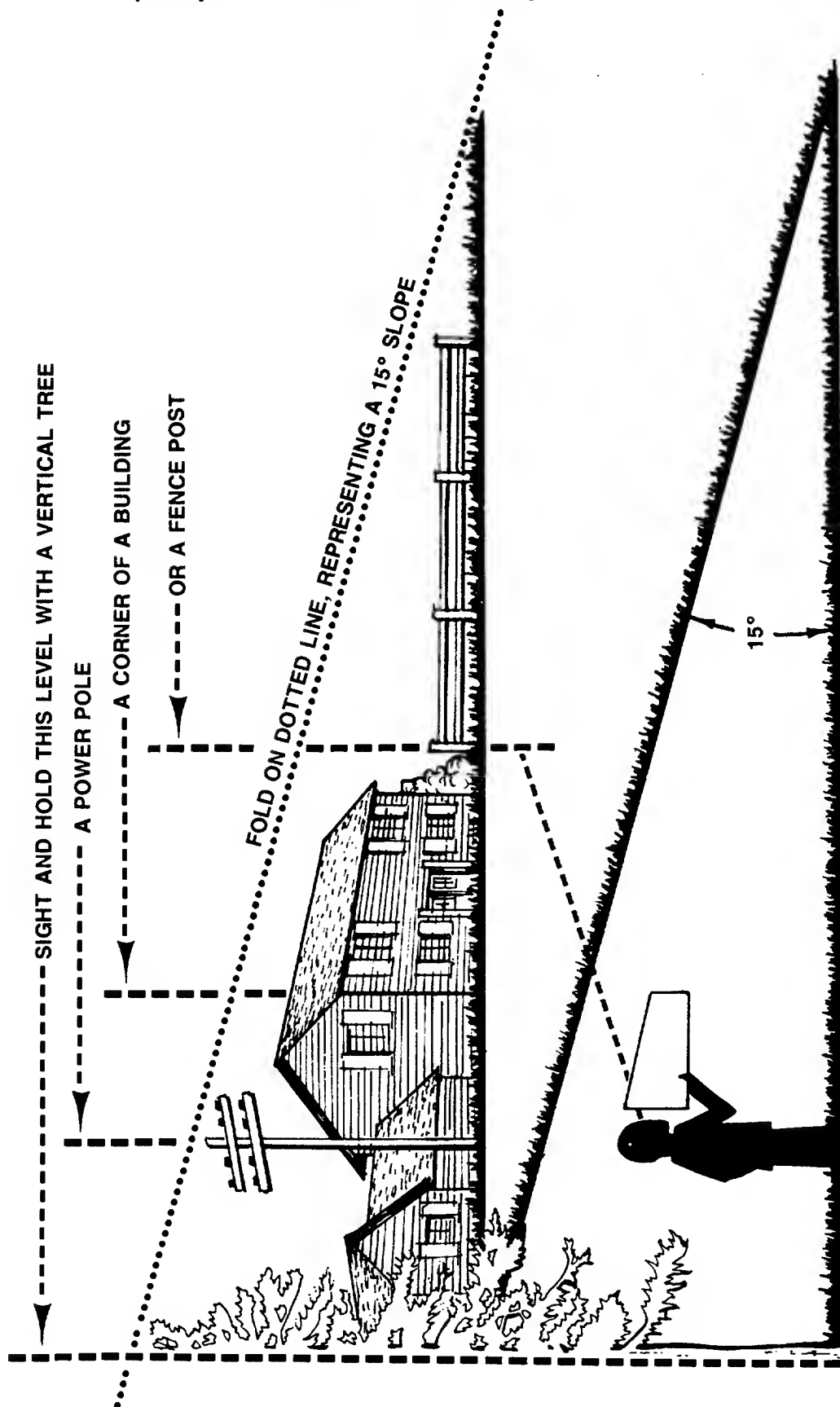
*For replacement bags, use only factory authorized replacement.*

A 30" Mulching Kit Model 093 is available as optional equipment for 30" side discharge deck.

USE THIS SHEET AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.

# SLOPE GAUGE

(Keep this sheet in a safe place for future reference.)



Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2½ feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

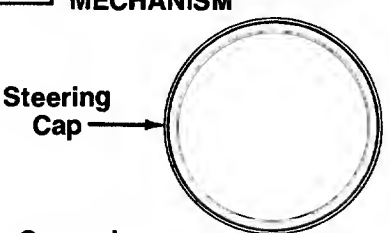
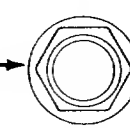

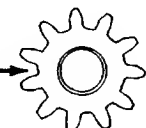




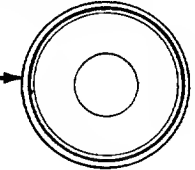
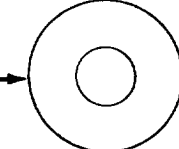
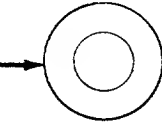

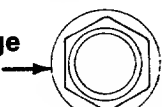
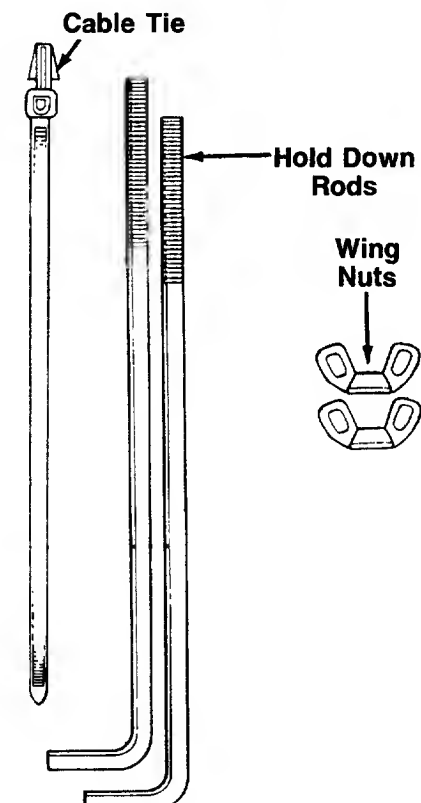
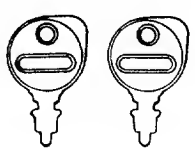
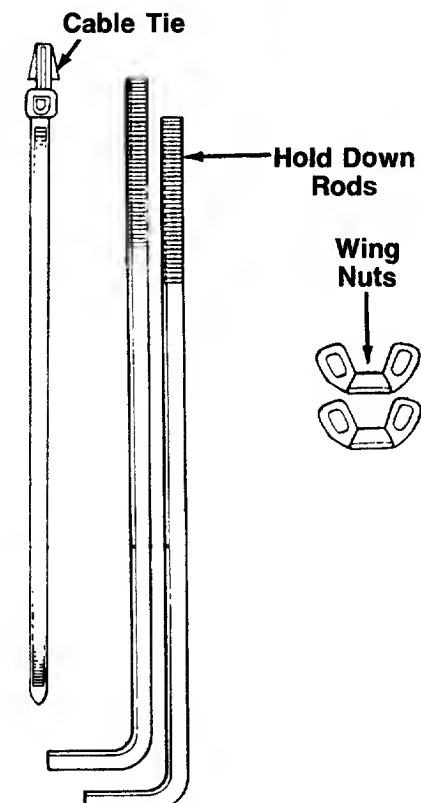
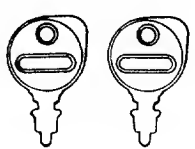
Operate RIDING mowers up and down slopes, never across the face of slopes.

Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

# CONTENTS OF HARDWARE PACK

Remove this sheet from your owner's manual and separate the hardware according to the illustration for identification purposes. Parts are illustrated approximately half size. After assembly, keep the Slope Gauge which is on the reverse side of this sheet for future use.

(Hardware pack may contain extra items which are not used on your unit.)

<p><b>A ATTACHING THE STEERING MECHANISM</b></p>  <p>Steering Cap</p> <p>Cupped Washer 5/16" I.D.</p> <p>Hex Lock Nut 5/16-24 Thread</p>  <p>Hex Flange Bearing</p>  <p>Flat Washer 1/2" I.D. x 1" O.D.</p>  <p>Steering Pinion Gear</p>  <p>Flat Washer 5/16" I.D. x 5/8" O.D.</p>  <p>Hex Lock Nut 5/16-24 Thread</p>  <p>Self-Tapping Screws 1/4" x 5/8" Long</p>	<p><b>B ATTACHING THE SEAT</b></p>  <p>Self-Tapping Screws 3/8-16 x 3/4" Long</p>
<p><b>Models 510, 520, 530 &amp; 550</b></p>  <p>Steering Tube Spacer</p>  <p>Flat Washer 5/8" I.D. x 1-5/8" O.D.</p>  <p>Flat Washer 5/8" I.D. x 1-1/4" O.D.</p>  <p>Cotter Pin</p>  <p>Hex Flange Bearing</p> <p><b>Models 511, 521, 531 &amp; 551</b></p>  <p>Flat Washer 5/8" I.D. x 1-1/4" O.D.</p>  <p>Spacer (Plastic)</p>	<p><b>C INSTALLING THE BATTERY</b> (Black Plastic Cover Is Not Shown)</p>  <p>Cable Tie</p> <p>Hold Down Rods</p> <p>Wing Nuts</p> <p><b>D IGNITION KEYS</b></p> <p>(May Be Attached To Tractor)</p> 



# IMPORTANT

## RULES FOR SAFE OPERATION



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR UNIT. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL—



**HEED ITS WARNING.**



### **DANGER:**

**Your unit was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.**

1. READ THIS OWNER'S MANUAL carefully in its entirety before attempting to assemble or operate this unit. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. This unit is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.
3. Know the controls and how to stop the machine quickly.
4. Do not allow children under 14 years old to operate vehicle. Children 14 years and over should only operate unit under close parental supervision. Do not allow anyone to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
5. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals, or sneakers.
6. To prevent injury, do not carry passengers or give rides. Keep children, pets and bystanders out of the area while mowing. Only the operator should ride on the unit and only ride in the seat.
7. Check overhead clearance carefully before driving under power lines, guy wires, bridges or low hanging tree branches, before entering or leaving buildings, or in any other situation where the operator may be struck or pulled from the unit, which could result in serious injury.
8. To maintain control of the unit and reduce the possibility of upset or collision, operate the tractor smoothly. Avoid erratic operation and excessive speed.
9. Thoroughly inspect the area to be mowed. Remove all stones, sticks, wire, bones and other foreign objects. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower. Although the area of operation should be completely cleared of foreign objects, a small object may have been overlooked and could be accidentally thrown by the mower in any direction and cause injury to you or a bystander. Plan your mowing pattern to avoid discharge of material toward roads, sidewalks, bystanders, pets and the like.
10. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair, to protect eyes from foreign objects that may be thrown from the machine in any direction.
11. Stop the blade(s) when crossing gravel drives, walks or roads.
12. Disengage all attachment clutches, thoroughly depress the brake pedal, and shift into neutral before attempting to start engine.
13. Before leaving the operator's position, disengage blade(s), place shift lever in neutral, engage parking brake, shut engine off and remove key.
14. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times as the rotating blade(s) can cause injury.
15. Disengage power to attachment(s) and stop engine before making any repairs or adjustments. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
16. Before attempting to unclog the mower or discharge chute, stop the engine. The mower blade(s) may continue to rotate for a few seconds after the engine is shut off. Therefore, be sure the blade(s) have stopped completely. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
17. Disengage power to attachment(s) when transporting or not in use.
18. For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.
19. Do not stop or start suddenly when going uphill or downhill. Mow up and down face of steep slopes; never across the face. Use extreme caution if it is necessary to drive the tractor up an incline or back the tractor down an incline because the front of the tractor could lift and rapidly flip over backward which could cause serious injury.
20. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Always keep the tractor in low gear when going down steep hills to take advantage of engine braking action. Choose a low enough gear so that you will not have to stop or shift while on the slope.
21. Stay alert for holes in terrain and other hidden hazards which may cause the unit to tip over.
22. Use care when pulling loads or using heavy equipment.
  - A. Use only approved drawbar hitch points.
  - B. Limit loads to those you can safely control.
  - C. Do not turn sharply. Use care when backing.
  - D. Use counterweight(s) or wheel weights when suggested in owner's manual.
23. Watch out for traffic when crossing or near roadways.
24. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
25. Handle gasoline with care. It is highly flammable.
  - A. Extinguish cigarettes, cigars, pipes and all other sources of ignition.
  - B. Use approved gasoline container.
  - C. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Allow to cool at least 2 minutes before refilling. Wipe up spilled gasoline. Always use original type vented cap.
  - D. Open doors if engine is run in garage. Exhaust fumes are dangerous. Do not run engine indoors.
26. Never store the machine with fuel in the fuel tank inside a building where fumes may reach an open flame or spark, such as hot water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
27. To reduce fire hazard, keep engine and cutting deck free of grass, leaves or excessive grease or oil.
28. Keep the vehicle and attachments in good operating condition, and keep safety devices in place. Use guards as instructed in operator's manual. Do not operate this unit unless the chute deflector, guards, and safety interlock system are installed and functioning properly.
29. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
30. The vehicle and attachments should be stopped and inspected for damage after striking a foreign object. The damage should be repaired before restarting and operating the equipment.
31. Do not change the engine governor settings or overspeed the engine.

## RULES FOR SAFE OPERATION (CONTINUED)

32. When using the vehicle with mower, proceed as follows:
  - A. Mow only in daylight or in good artificial light.
  - B. Never make a cutting height adjustment while engine is running if operator must dismount to do so.
  - C. Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher.
  - D. Check blade mounting bolts for proper tightness at frequent intervals. Also, check blades for wear or damage (e.g. bent, cracked). Replace with blade which meets original equipment specifications.
33. Check grass catcher bags frequently for wear or deterioration. For safety protection, replace only with new bag meeting original equipment specifications.
34. Look behind to make sure the area is clear before placing the transmission in reverse and continue looking behind while backing up. Disengage blades before shifting into reverse and backing up.
35. This unit should not be driven up a ramp onto a trailer or truck under power, because the unit could tip over, causing serious personal injury. The unit must be pushed manually to load properly.
36. Check brake operation frequently. Adjust and service according to brake adjustment instructions in this manual.
37. Muffler, engine, and belt guards become hot during operation and can cause a burn. Allow to cool down before touching.

## ASSEMBLY

**IMPORTANT:** This unit is shipped **WITHOUT GASOLINE or OIL**; however, a small amount of oil may be present from the factory. Do not overfill. After assembly, service engine with gasoline and oil as instructed in the separate engine manual packed with your unit.

**NOTE:** Reference to right or left hand side of the unit is observed from the driver's seat, facing forward.

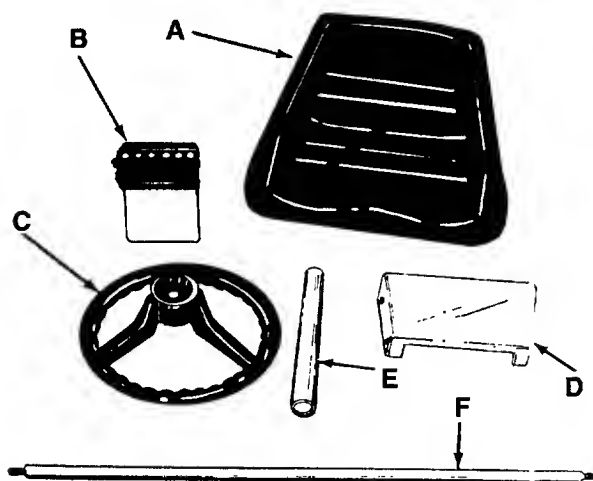


FIGURE 1.

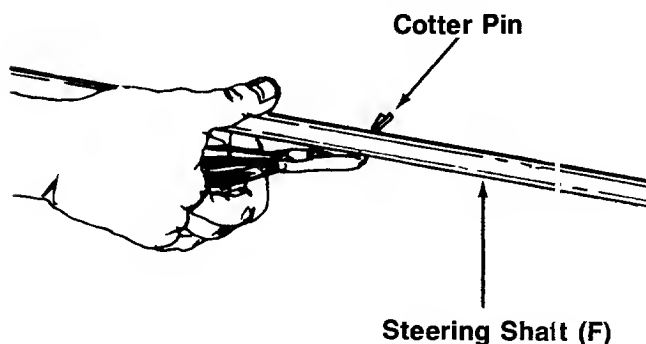


FIGURE 2.—Models 510, 520, 530 and 550

This owner's manual covers various models of lawn tractors. The units illustrated may vary slightly from your unit. Follow only those instructions which pertain to your model riding mower.

Refer to the separate deck manual for all information concerning the deck.

### UNPACKING

1. Remove the riding mower from the carton as follows. Open the top flaps. Remove all loose parts and carton inserts. Cut the front corners of the carton. Make certain brake is released, and push the unit out of the carton.
2. Remove page four from this manual and separate the contents of the hardware pack according to the illustration for identification.

#### ← Loose Parts in Carton: (See Figure 1)

- A (1) Seat
- B (1) 12 Volt Battery
- C (1) Steering Wheel
- D (1) Steering Gear Cover
- E (1) Steering Tube—Chrome (Models 510, 520, 530 & 550)
- F (1) Steering Shaft (Models 510, 520, 530 & 550)
- G (1) Steering Shaft Assembly (Models 511, 521, 531 & 551)—Not Shown

### ATTACHING THE STEERING MECHANISM (Hardware A)



**WARNING:** Follow instructions carefully as improper adjustment of the steering mechanism will cause excessive wear on the steering gear segment and will void your warranty.

**NOTE:** Steps 1 through 6 are for Models 510, 520, 530 & 550 only. For Models 511, 521, 531 & 551, proceed with step 6.

#### ← Models 510, 520, 530 and 550 only:

1. Insert the **cotter pin** into the hole on **steering shaft (F)**. Secure in place by bending the ends of the cotter pin in opposite directions. See figure 2.

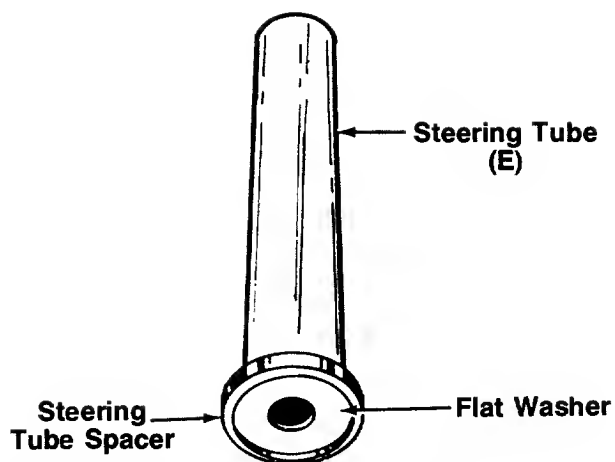


FIGURE 3.—Models 510, 520, 530 and 550

2. Press the large **flat washer** (1-5/8" diameter) into the open side of the black plastic **steering tube spacer**. See figure 3.
3. Press the **steering tube spacer** into one end of the chrome-plated **steering tube (E)**. Make certain spacer is seated securely into tube.

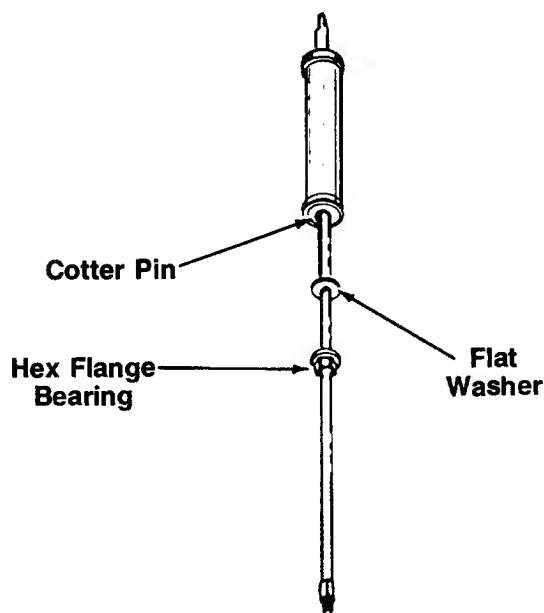


FIGURE 4.—Models 510, 520, 530 and 550

4. Hold the **steering shaft** upright, so that the **cotter pin** is closer to the top of the shaft. Slide the **steering tube spacer** and **steering tube** down over the shaft (above the cotter pin). See figure 4.
5. Slip **flat washer** (1 1/4" diameter) on the **steering shaft** immediately below the cotter pin. Place one plastic **hex flange bearing** flat side up, below the washer.
6. **Models 510, 520, 530 and 550:** Insert the **steering shaft** with assembled parts through the **steering housing cover**. The lower end of the shaft should extend through the hole in the front end of the **steering gear adjuster** (Ref. No. 75 on page 28). See figure 5.

**Models 511, 521, 531 and 551:** Insert the **steering shaft** through the **steering housing cover**. Place **flat washer** and **plastic spacer** over end of **steering shaft** before inserting the shaft through the hole in the front end of the **steering gear adjuster** (Ref. No. 75 on page 28).

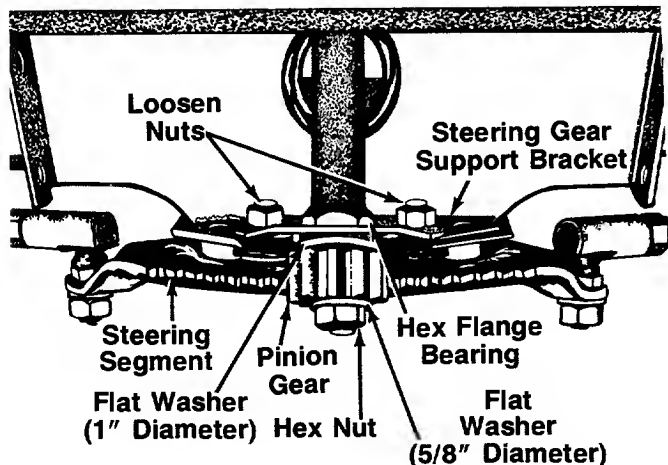


FIGURE 5.

7. Loosen the **hex nuts** located at the rear of the **steering gear adjuster** so that the steering gear adjuster can be pulled about 1/4" toward the front of the rider, to permit easier assembly of the **pinion gear**. One 9/16" wrench is required.
8. Place **hex flange bearing**, flat side down, over the end of the **steering shaft**, and seat it into the **steering gear adjuster**. See figure 5.
9. Place **flat washer** (1" diameter) over end of **steering shaft** and raise **steering shaft** slightly so **pinion gear** can be placed in position (teeth of gear must mesh with teeth of steering gear segment). Insert steering shaft through pinion gear (splined collar on steering shaft is inside of pinion gear). Then place **flat washer** (5/8" diameter) on shaft and secure with **hex nut** (5/16" I.D.). Do not tighten at this time.

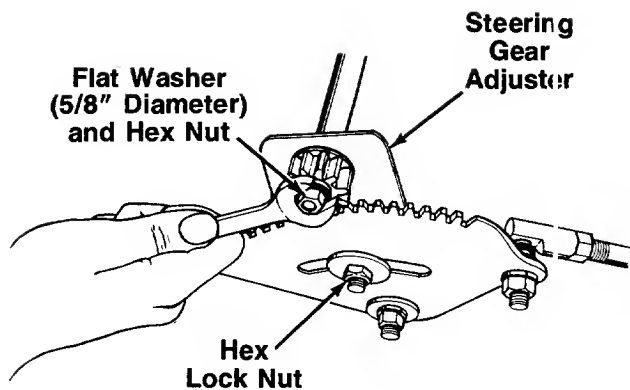


FIGURE 6.

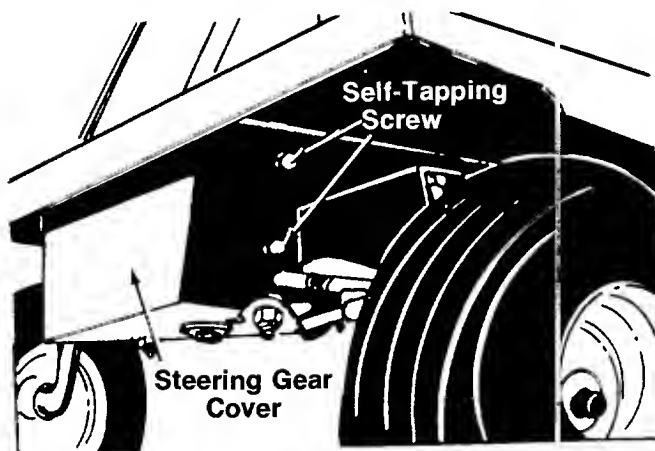


FIGURE 7.

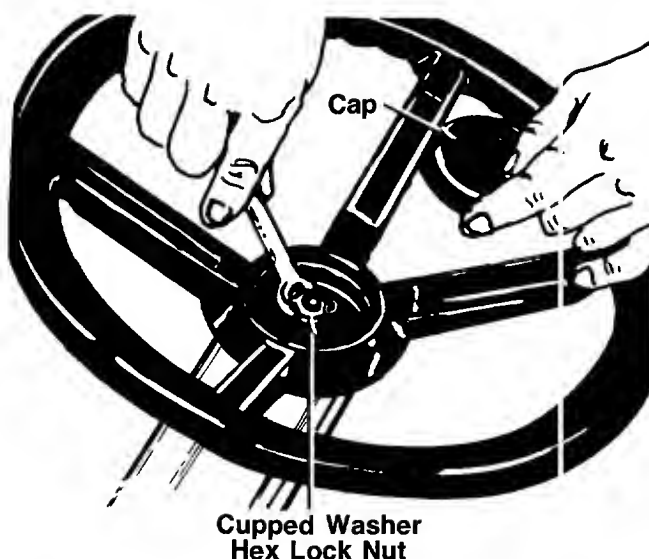


FIGURE 8.

10. Push the **steering gear adjuster** (loosened in step 7) forward toward its original position, until the pinion gear **engages solidly into the teeth of the steering gear segment**. Retighten the nuts at the rear of the steering gear adjuster. One 9/16" wrench is required.



**WARNING:** Steering gear must be adjusted as instructed in step 10, and hex lock nut must be adjusted as instructed in step 12. Improper adjustment will cause excessive wear on the steering gear segment.

11. Now tighten the hex nut which secures the pinion gear. See figure 6.
12. Make certain the hex lock nut which secures the steering segment to the steering gear support bracket (shown in figure 6) is tightened so there is no play between the two parts. Do not over-tighten as the steering segment must be free to turn.
13. Lubricate the teeth of the pinion gear and steering gear segment with an automotive chassis grease.
14. Install the **steering gear cover** (D) as shown in figure 7, to cover the underside of the steering mechanism. Secure with two **self-tapping screws** on each side of the cover. Do not completely tighten any of these screws until all four of them are positioned correctly.

15. Position the front wheels of the riding mower so they are pointing straight forward.
16. Place **steering wheel** (C) in position desired. Make certain the steering wheel is seated over the end of the steering tube.
17. Place the **cupped washer** with the cupped side down over the **steering shaft**. Secure with 5/16" **hex lock nut**. See figure 8.
18. Place the **steering wheel cap** over the center of the **steering wheel** and seat it with your hand.

#### ATTACHING THE CHUTE DEFLECTOR

If your unit has been shipped without the chute deflector assembled, follow the instructions in the separate deck manual packed with your unit.



**WARNING:** Do not operate your unit unless the chute deflector has been properly installed.



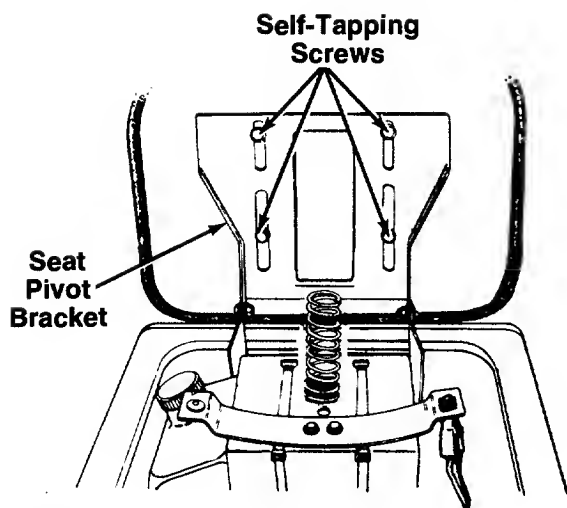


FIGURE 9.

## ATTACHING THE SEAT (Hardware B)

The slots in the **seat pivot bracket** allow the seat to be adjusted to different positions. Place the **seat** against the seat pivot bracket in the position desired, and secure with four self-tapping screws. See figure 9.

## TIRE PRESSURE

The tires on your unit may be over-inflated for shipping purposes. Reduce the tire pressure before operating the unit. Recommend operating tire pressure is approximately 12 p.s.i. (check sidewall of tire for tire manufacturer's recommended pressure).



**WARNING: Maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on all tires.**

## BATTERY INFORMATION



### WARNING

- A. Battery acid must be handled with great care as contact with it can burn and blister the skin. It is also advisable to wear protective clothing (goggles, rubber gloves and apron) when working with it.\*
- B. Should battery acid accidentally splatter into the eyes or onto the face, rinse the affected area immediately with clean cold water. If there is any further discomfort, seek prompt medical attention.
- C. If acid spills on clothing, first dilute it with clean water, then neutralize with a solution of ammonia/water or baking soda/water.

- D. Since battery acid is corrosive, do not pour it into any sink or drain. Before discarding empty electrolyte containers, rinse them with a neutralizing solution.
- E. NEVER connect or disconnect charger clips to battery while charger is turned on as it can cause sparks.
- F. Keep all lighted materials (cigarettes, matches, lighters) away from the battery as the hydrogen gas generated during charging can be combustible.
- G. As a further precaution, only charge the battery in a well-ventilated area.

**\*Always shield eyes, protect skin and clothing when working near batteries.**

## ACTIVATING THE BATTERY

**Do not activate battery (fill with battery acid) until battery is actually placed in service. Be certain to read previous warnings before activating the battery.**

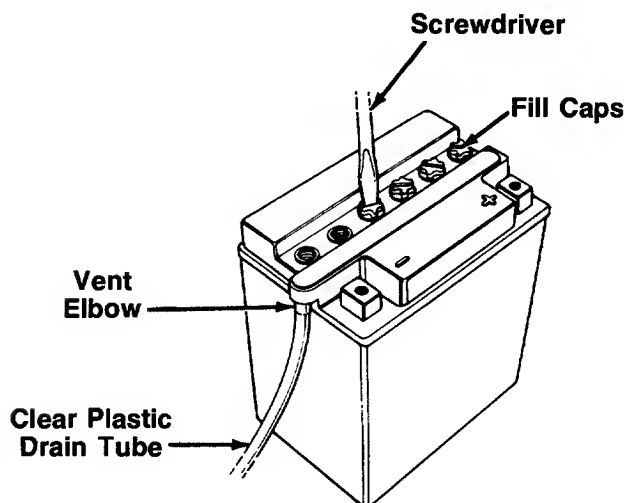


FIGURE 10.

1. Open the battery pack. Be careful not to puncture the box. It contains the battery with a long plastic tube attached, battery fluid (acid) in a plastic container, one short plastic tube and one hardware pack (two hex bolts and nuts).
2. Place the battery on a table or workbench. Make certain the long plastic drain tube is in place on the vent elbow.
3. Remove the six fill caps from the top of the battery with a screwdriver. Be careful not to damage the fill caps. See figure 10.
4. Place the battery fluid container on the table or workbench. Carefully cut off tip of the spout and attach the short plastic tube provided. Do not squeeze the container when cutting tip.

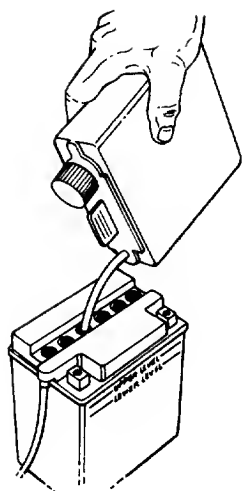


FIGURE 11.



### DANGER

**Battery contains sulfuric acid. Refer to warning on page 9. Antidote: EXTERNAL—Flush with water. INTERNAL—Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Seek prompt medical attention. EYES: Flush with cool water for at least 15 minutes; then seek immediate medical attention.**

**Since batteries produce explosive gases, keep all lighted materials (cigarettes, lighters, matches, etc.) away. Be sure to charge battery only in well-ventilated areas. Make certain venting path of battery (drain tube) is always open.**

**KEEP BATTERIES  
OUT OF THE REACH OF CHILDREN!**

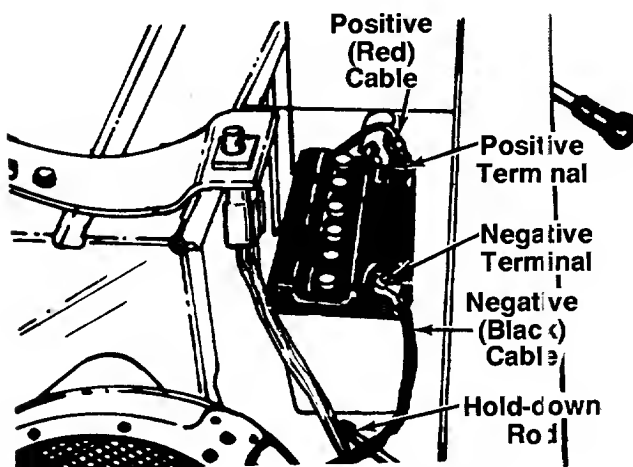


FIGURE 12.

5. Fill each battery cell slowly and carefully to the **UPPER LEVEL** line marked on battery. See figure 11. Use caution as the acid level will rise rapidly after the bottom of the cell is filled.
6. Allow battery to stand for 30 minutes with the fill caps removed, while the plates absorb acid.
7. If acid level has fallen after the 30 minute standing period, refill each cell with battery acid to the **UPPER LEVEL** line on battery. Replace the fill caps.
8. Before discarding the empty container, neutralize any residue with baking soda and rinse container with water. Puncture container several times before discarding.
9. Charge the battery after the 30 minute standing period. **SLOW CHARGE THE BATTERY (DO NOT FAST CHARGE)** at a maximum bench rate of 1.4 amperes until the specific gravity reading is 1.260-1.280. Charge for a minimum of 2 hours and a maximum of 8 hours.

**NOTE:** This engine is equipped with an alternator. The current for the battery charger alternator is unregulated. During normal operation, it is only necessary to charge the battery:

1. When it is activated for the first time.
2. Before winter storage.
3. Before using the lawn tractor after winter storage.

**NOTE:** Charging rate after battery has been put into operation: The battery is to be charged for a period of 14-16 hours, **NO LONGER THAN 30 HOURS.**

**After battery has been charged, add only distilled water. Do not add acid.**

### INSTALLING THE BATTERY (Hardware C)

1. Hook the battery hold-down rods into the holes in the frame. See figures 12 and 13.
2. Place the battery in the rider with the positive terminal to the front. The negative terminal goes to the rear of the unit. See figure 12.
3. Place the positive (heavy red) cable and small red wire with in-line fuse on the positive terminal. Secure with bolt, nut and lock washer provided with battery.
4. Place the negative (heavy black) cable on the negative terminal. Secure with bolt, nut and lock washer provided with battery. See figure 12.

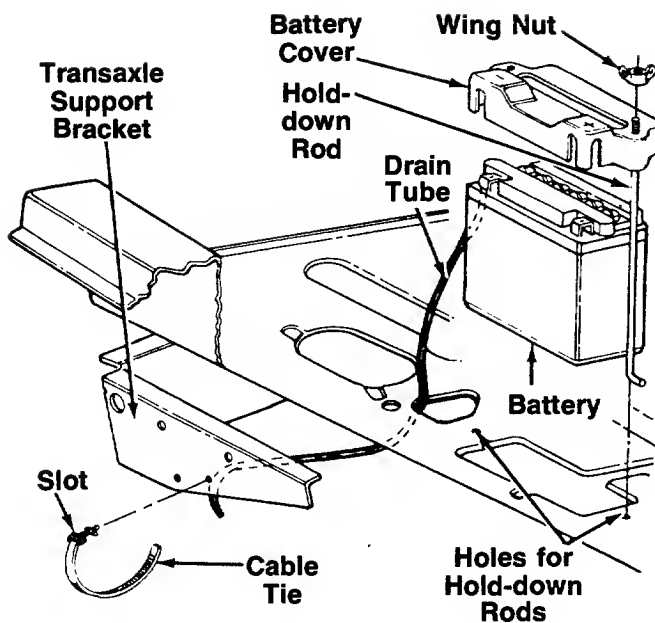


FIGURE 13.

5. Secure the battery in place with battery cover and hold-down rods. Secure with two wing nuts. See figure 13.
6. Route the clear plastic drain tube down through the hole in the frame, next to the engine drain plug, shown in figure 13.
7. Push the locking end of cable tie through the hole in transaxle support bracket. Place the end of cable tie through the slot so a loop is formed around the drain tube to secure it. Tighten cable tie and cut off excess end.

## CONTROLS

This manual should be read in its entirety before operating the riding mower. **Be certain to service the engine with gasoline and oil as instructed in the separate engine manual before starting the engine.** Study the operating instructions and safety precautions thoroughly to insure proper functioning of your mower and to prevent injury to yourself and others. Be sure to save this manual for future reference.

### THROTTLE CONTROL

The throttle control is used to regulate the engine speed. The engine should be operated at full throttle when operating the cutting deck. See figure 14.

### CHOKE CONTROL

The choke control is located on the console and is operated manually. Details for the choke operation are covered in the separate engine manual packed with your unit. See figure 14.

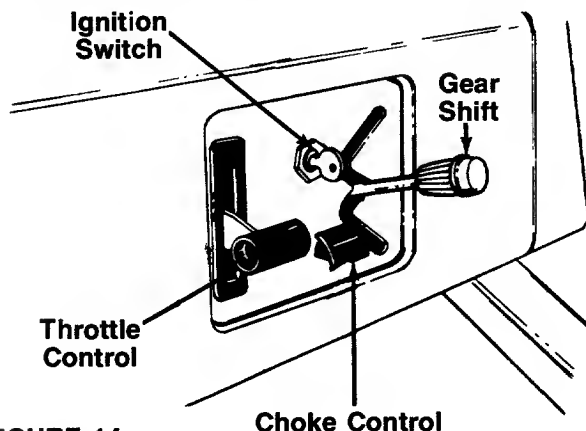


FIGURE 14.

### IGNITION KEY

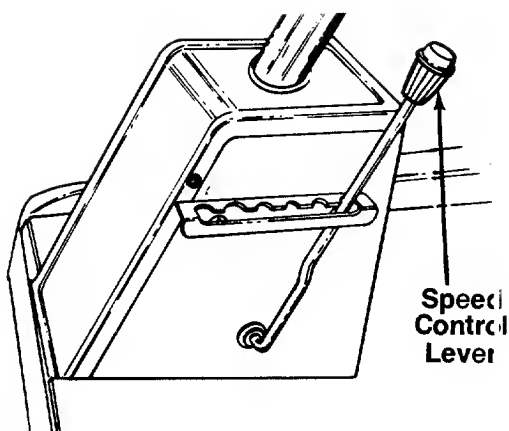
The key must be turned to the START position to start the engine. After the engine is running, let the key return to the ON position. Turn the key to the OFF position to stop the engine. Remove the key when the rider is not in use. See figure 14.

### SHIFT LEVER

The shift lever is located on the left hand side of the console and has three positions, FORWARD, NEUTRAL and REVERSE. See figure 14. The clutch-brake pedal must be depressed and the riding mower must not be moving when shifting gears. Do not force the shift lever. Release the clutch-brake pedal slightly to line up the shifting collar in the transmission. Then try to shift gears.

### SPEED CONTROL LEVER

The speed control lever allows you to regulate the ground speed of the riding mower to one of six settings. See figure 15. To set, depress clutch pedal. Push speed control lever outward and move backward to slow rider, move forward to increase speed. When desired speed has been obtained, place lever in that position. Whenever clutch is engaged, rider will automatically go to the pre-set speed.

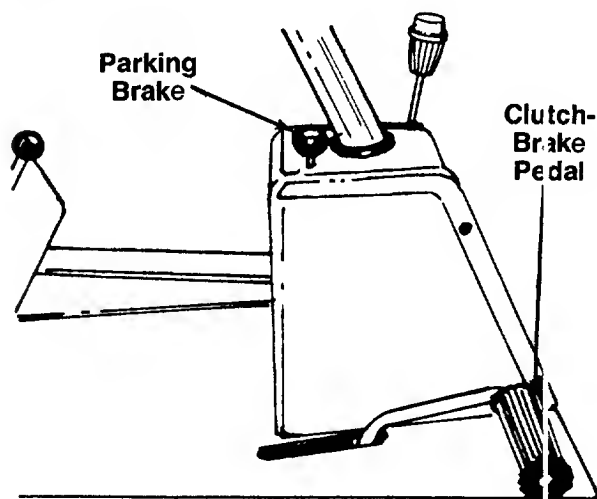


**FIGURE 15.—Models 510, 520, 530 and 550 Shown**

### CLUTCH-BRAKE PEDAL

The clutch-brake pedal is located on the right side of the rider. Depressing the clutch-brake pedal part way disengages the clutch. Pressing the pedal all the way down disengages the clutch and engages the disc brake. See figure 16.

**NOTE:** The clutch-brake pedal must be depressed to start the engine. Parking brake must be engaged if operator leaves the seat with the engine running.



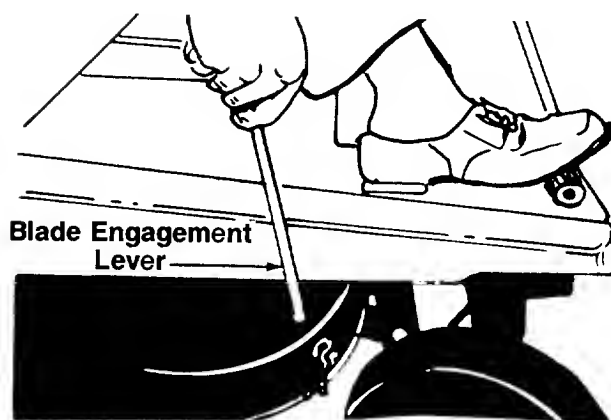
**FIGURE 16.—Models 510, 520, 530 and 550 Shown**

### PARKING BRAKE

To set the parking brake, depress the clutch-brake pedal and press the parking brake knob down. To release the parking brake, depress and release the clutch-brake pedal. See figure 16.

### BLADE ENGAGEMENT LEVER

The blade engagement lever is located on the right hand side of the deck. Figure 17 shows the blade engagement lever in the disengaged position.



**FIGURE 17.**

To engage the blade, move the blade engagement lever toward the front of the unit. Move the lever toward the rear to disengage the blade.

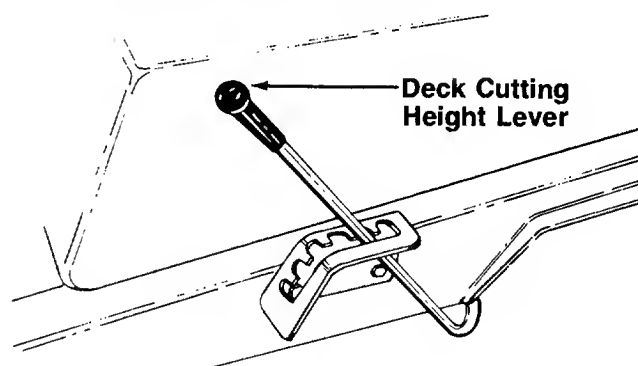
### DECK CUTTING HEIGHT LEVER

The deck cutting height lever is used to raise and lower the cutting deck, which sets the cutting height.

Move the lever outward, select desired cutting height and release lever. The lever may be set in any one of the six cutting height positions. See figure 18.



**WARNING:** The blade does not shut off when the deck is raised. You must place the Blade Engagement Lever in the disengaged (OFF) position.



**FIGURE 18.**

### SAFETY INTERLOCK SYSTEM

Interlock safety switches are located on the clutch-brake pedal, the blade engagement lever, shift lever and the seat.

Before the engine will start or if the operator leaves the seat, the clutch-brake pedal must be depressed all the way (parking brake engaged), and the blade engagement lever must be in the disengaged position.

In addition, the blade engagement lever must be in the disengaged position before the unit can be shifted into reverse.

# OPERATION

## CAUTION

- READ OPERATOR'S MANUAL(S) • NEVER CARRY CHILDREN
- KNOW LOCATION AND FUNCTION OF ALL CONTROLS
- KEEP SAFETY DEVICES (GUARDS, SHIELDS AND SWITCHES) IN PLACE AND WORKING
- REMOVE OBJECTS THAT COULD BE THROWN BY BLADE(S)
- DO NOT OPERATE THE UNIT WHEN CHILDREN AND OTHERS ARE AROUND
- ALWAYS LOOK BEHIND THE UNIT BEFORE BACKING UP
- DO NOT OPERATE THE UNIT WHERE IT COULD SLIP OR TIP
- IF THE UNIT STOPS GOING UPHILL, STOP BLADE(S) AND BACK SLOWLY DOWNHILL
- BE SURE BLADE(S) AND ENGINE ARE STOPPED BEFORE PLACING HANDS OR FEET NEAR BLADE(S)
- BEFORE LEAVING OPERATOR'S POSITION, DISENGAGE THE BLADE(S), PLACE THE SHIFT LEVER IN NEUTRAL, ENGAGE THE PARKING BRAKE, SHUT ENGINE OFF AND REMOVE THE KEY.

**IMPORTANT:** This unit is equipped with a **safety interlock system** for your protection. The purpose of the safety interlock system is to prevent the engine from cranking or starting unless the clutch-brake pedal is depressed and the blade engagement lever is in the disengaged position. In addition, the blade engagement lever must be in the disengaged position when the unit is put into reverse or the engine will shut off. If the operator leaves the seat with the blade engagement lever engaged and/or without setting the parking brake, the engine will shut off.



**WARNING:** Do not operate the rider if the interlock system is malfunctioning because it is a safety device, designed for protection.

## GAS AND OIL FILL-UP

**Service the engine with gasoline and oil** as instructed in the separate engine manual packed with your rider. Read instructions carefully.

**NOTE:** Your rider is shipped without oil; however, a small amount of oil may be present from the factory. Do not overfill.



**WARNING:** Never fill fuel tank indoors, with engine running or while engine is hot.

## STARTING THE ENGINE



**WARNING:** Get on and off the unit from the left hand side to avoid possible contact with the blade engagement lever (located on the right hand side).

1. Attach the wire to the spark plug.
2. Depress the clutch-brake pedal and lock it down.

3. Move the blade engagement lever back to the disengaged position.
4. Set throttle control in the FAST position. Pull out the choke control.

**NOTE:** A warm engine may not require choking.

5. Place the shift lever in the NEUTRAL position.
6. Turn the ignition key to the START position. As soon as the engine starts, let the key return to the ON position. See figure 14.
7. Push choke knob in gradually. Move throttle control to desired engine speed.
8. To stop, turn the ignition key to the OFF position. Remove the key when the rider is not in use.

## PUTTING THE RIDING MOWER IN MOTION

**NOTE:** Parking brake *must* be disengaged before unit is put into motion.

1. Advance the throttle control to full throttle to prevent strain on the engine and to operate the cutting blades.
2. Place the shift lever in either the FORWARD or REVERSE position.



**WARNING:** Look to the rear before backing up.

3. Slowly release the clutch-brake pedal.
4. To stop, depress the clutch-brake pedal.

**NOTE:** When operating the unit initially, there will be little difference between the highest two speeds until after the belts have seated themselves into the pulleys during the break-in period.

5. The blades can be engaged either while moving or while standing still. Move the blade engagement lever forward slowly until the blades are turning.



**WARNING:** When the blades are engaged, keep feet and hands away from the discharge opening, the blades or any part of the deck.

## STOPPING

**Engine**—Turn the ignition key to the left to the OFF position.

**Rider**—Depress the clutch-brake pedal.

**Blades**—Pull the blade engagement lever all the way back.

Be sure that the lawn is clear of stones, sticks, wire, or other objects which could damage lawn mower or engine. For best results and to insure more even grass distribution, do not mow when lawn is excessively wet.



**WARNING:** Before leaving the operator's position for any reason, disengage the blades, place the shift lever in neutral, engage the parking brake, shut engine off and remove the key.

When stopping the unit to empty a grass bag, etc., follow the instructions above. This procedure will also eliminate "browning" the grass, which is caused by hot exhaust gases from a running engine.

**IMPORTANT:** If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

**NOTE:** If any problems are encountered, refer to the Trouble Shooting Guides on pages 20 and 21.

If unit stalls with speed control in high speed, or if unit will not operate with speed control lever in a low speed position, proceed as follows.

1. Place shift lever in Neutral.
2. Restart engine.
3. Place speed control lever in high speed position.
4. Release clutch-brake pedal fully.
5. Depress clutch-brake pedal.
6. Place speed control lever in desired position.
7. Place shift lever in either Forward or Reverse, and follow normal operating procedures.

## ADJUSTMENTS



**WARNING:** Do not at any time make any adjustment to riding mower without first stopping engine and disconnecting spark plug wire.

### THROTTLE CONTROL

If adjustment is needed, refer to the separate engine manual packed with your unit.

### SPEED CONTROL LEVER ADJUSTMENT

**NOTE:** When operating the unit initially or after replacing the belts, there will be little difference between the highest two speeds until after the belts have gone through a break-in period and have seated themselves into the pulleys.

If the full range of speeds cannot be obtained on your unit, adjust the speed control lever as follows.

1. Start the engine.
2. Place the shift lever in Neutral position.
3. Place the speed control lever in high speed position.
4. Release the clutch-brake pedal completely, then slowly depress the pedal all the way (to park position). Hold the pedal in this position.
5. Turn the engine off.
6. After engine stops completely, release the clutch-brake pedal.
7. Disconnect the speed control rod by removing the hairpin cotter and flat washer. See figure 19.

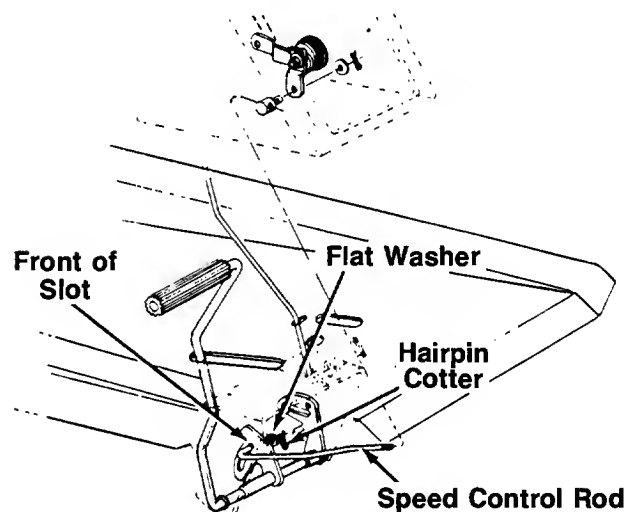


FIGURE 19.

8. Place the speed control lever in 2nd speed position.
9. Adjust the rod by threading it in or out of the ferule until it is all the way to the front of the slot as shown in figure 19.
10. Secure the speed control rod using the flat washer and hairpin cotter.

### NEUTRAL ADJUSTMENT (See Figure 20)

1. Place the transmission in neutral. (The unit will move freely when pushed forward and backward with the parking brake released).
2. Loosen the bolt which secures the shift lever assembly to the shift lever adjusting link.
3. Place the shift lever in the neutral slot.
4. Tighten the hex bolt to 13 foot pounds.

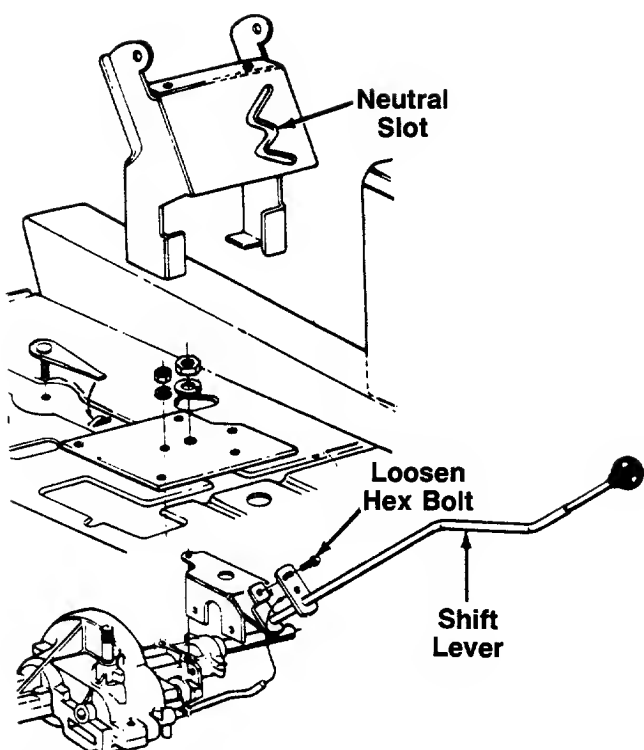


FIGURE 20.

### BRAKE ADJUSTMENT (See Figure 21)

**NOTE:** Your brake may be equipped with a lock nut instead of the castle nut and cotter pin shown in figure 21.

The brake is located by the left rear wheel inside the frame. During normal operation of this machine, the brake is subject to wear and will require periodic examination and adjustment.

To adjust the brake, remove the cotter pin from the castle nut (if so equipped). Adjust the nut so the brake starts to engage when the brake lever is  $\frac{1}{4}$ " to  $\frac{5}{16}$ " away from the axle housing.

**NOTE:** Figure 21 is shown with the unit tipped up on rear wheels for clarity only.

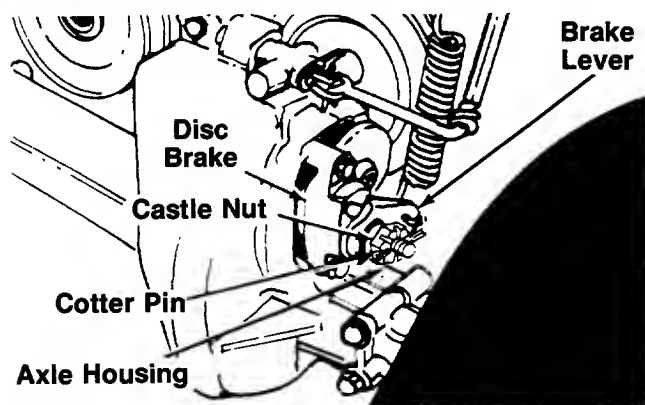


FIGURE 21.

### WHEEL ALIGNMENT

The caster (forward slant of the king pin) and the camber (tilt of the wheels out at the top) require no adjustment. Automotive steering principles have been

used to determine the caster and camber on the mower. The front wheels should toe-in  $\frac{1}{8}$  inch. See figure 22. To adjust, follow these steps:

1. Remove the cotter pin and flat washer which hold the tie rod to the axle bracket. See figure 22.
2. Adjust the tie rod in or out until the wheels toe-in approximately  $\frac{1}{8}$ " (Dimension "A" should be approximately  $\frac{1}{8}$ " less than dimension "B"). See figure 23.
3. Replace the tie rod into the wheel bracket, and replace the cotter pin and flat washer.

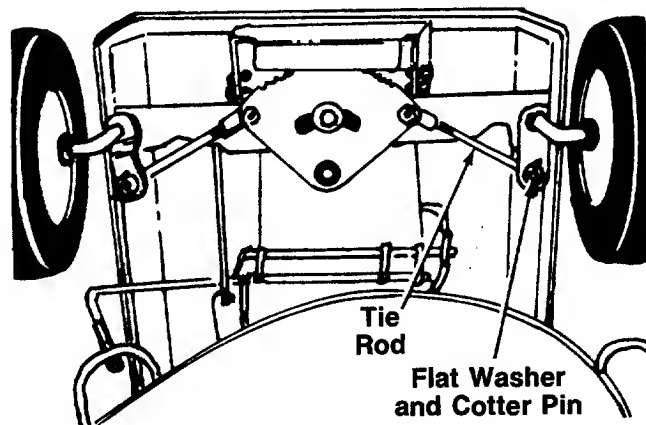


FIGURE 22.

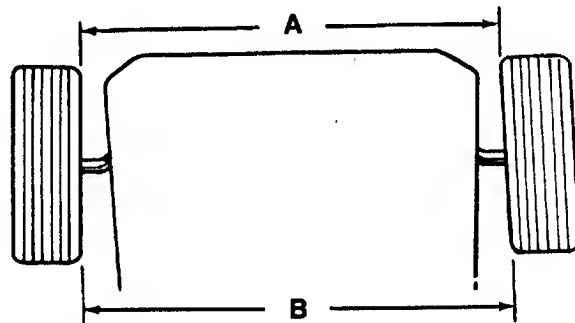


FIGURE 23.

### DECK ADJUSTMENT

The deck adjustments which follow are for 30" decks only. For 32" or 38" decks, refer to the separate deck manual packed with your rider.

#### Side to Side Leveling

**NOTE:** Check tire pressure in all four tires before leveling the deck. Recommended tire pressure is 12 p.s.i.

If an uneven cut is obtained, the deck may be leveled. A deck adjustment rod is located on the right side of the unit. See figure 24.

To adjust the deck, loosen the two hex nuts at the right rear deck link assembly. Thread the hex nuts up or down the deck adjustment rod as necessary. Retighten the hex nuts.

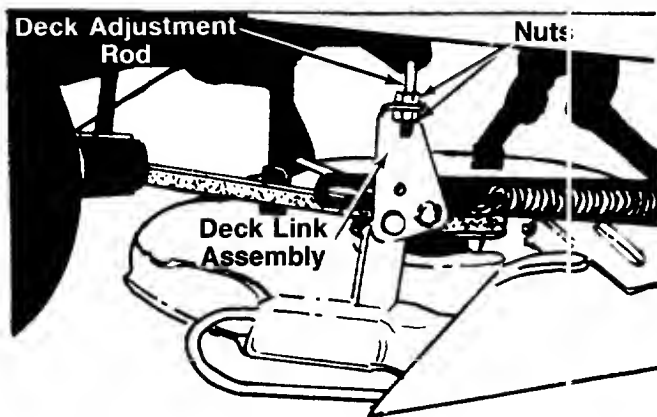


FIGURE 24.

### Deck Pitch

The front of the deck should be approximately  $1/4$ " to  $3/8$ " lower than the rear of the deck. Adjust the pitch as follows.

1. Place the deck in the engaged position.
2. Remove the hairpin cotter and flat washer which hold the deck lift connecting rod to the front deck lift assembly. See figure 25.
3. Remove the connecting rod from the deck lift assembly and thread it in or out of the ferrule as necessary. See figure 25. Replace the rod.

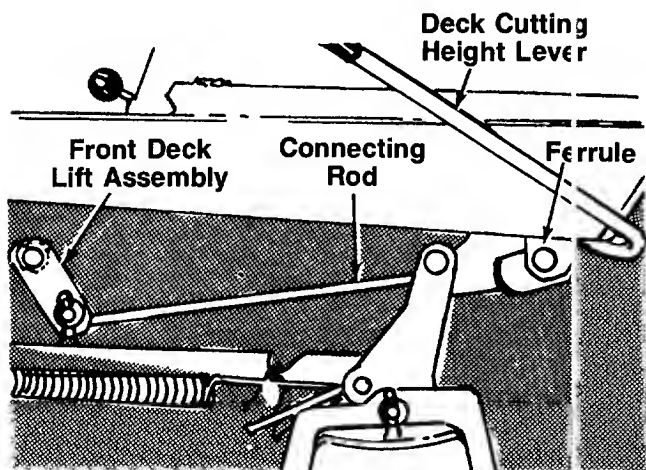


FIGURE 25.

### BLADE BRAKE ADJUSTMENT (See Figure 23)



**WARNING:** Make certain spark plug wire is disconnected and grounded against the engine while making this adjustment.

To adjust the blade brake, proceed as follows.

1. Disconnect the brake cable from the lower inside belt guard on the rider by removing the hairpin cotter, flat washer and clevis pin.
2. Lower the deck to its lowest position. Place the blade engagement lever in the **disengaged** position.

3. Pull the brake cable back so there is no slack in the cable. **Do not** put tension on the cable. Select the hole in the lower inside belt guard which aligns with the end of the cable. Move the end of the brake cable **forward** to the next hole in the belt guard (which will give a small amount of slack in the cable), and reassemble.

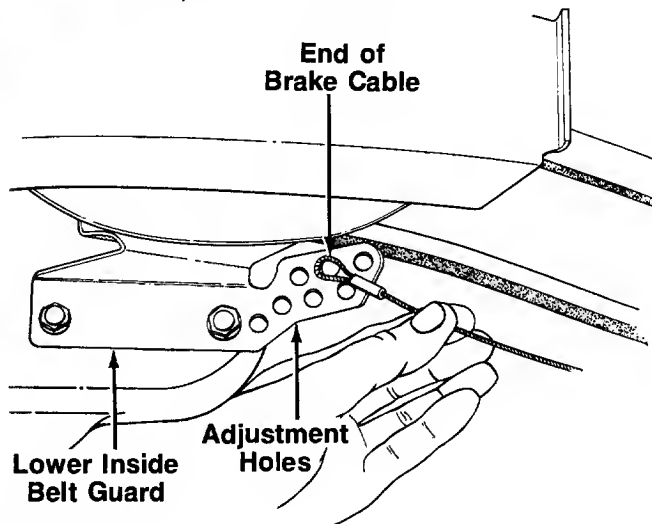


FIGURE 26.

### CARBURETOR ADJUSTMENT



**WARNING:** If any adjustments are made to the engine while the engine is running (e.g. carburetor), disengage all clutches and blades. Keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude and load. To adjust the carburetor, refer to the separate engine manual packed with your unit.

**NOTE:** A dirty air cleaner will cause an engine to run rough. Be certain air cleaner is clean and attached to the carburetor before adjusting carburetor.

## LUBRICATION



**WARNING:** Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on riding mower.

1. **Engine.** Maintain the engine oil according to the engine manual.
2. **Front Wheels.** The front wheels are provided with grease fittings. Lubricate at least once a season with automotive multi-purpose grease.
3. **Linkage.** Oil all deck linkage and height adjustment linkage.
4. **Transaxle.** It is lubricated at the factory and does not require checking. Lubricate with 10 oz. of grease (Part No. 737-0148) if disassembled.



## MAINTENANCE



**WARNING:** Disconnect spark plug wire and ground it against the engine before performing any repairs or maintenance.

### CUTTING BLADE

#### A. Removal for Sharpening or Replacement



**WARNING:** Be sure to disconnect and ground the spark plug wire before working on the cutting blade to prevent accidental engine starting. Protect hands by using heavy gloves or a rag to grasp the cutting blade.

1. Remove the large bolt and lock washer which holds the blade and adapter to the blade spindle. See figure 27.
2. Remove the blade and adapter from the spindle.
3. If the blade or blade adapter needs replacing, remove the two small bolts, lock washers and nuts which hold the blade to the adapter. See figure 27.

#### B. Sharpening

Remove the cutting blade by following the directions of the preceding section.

When sharpening the blade, follow the original angle of grind as a guide. It is **extremely important** that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds, may cause damage to the mower and could break, causing personal injury.

The blade can be tested for balance by balancing it on a round shaft screwdriver. Remove metal from the heavy side until it balances evenly.

**NOTE:** *It is recommended that the blade always be removed from the adapter for the best test of balance.*

#### C. Reassembly

Before reassembling the blade and the blade adapter to the unit, lubricate the spindle and the inner surface of the blade adapter with light oil. Lubricating the bolt holes, bolts and inner surface of the nuts with light oil is also recommended. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

When replacing the blade, be sure to install the blade with the side of the blade marked "Bottom" (or with part number) facing the ground when the mower is in the operating position.

#### Blade Mounting Torque

3/8" Dia. Bolt 375 in. lb. min., 450 in. lb. max.

5/16" Dia. Bolt 150 in. lb. min., 250 in. lb. max.

**NOTE:** *To insure safe operation, ALL nuts and bolts must be checked periodically for correct tightness.*

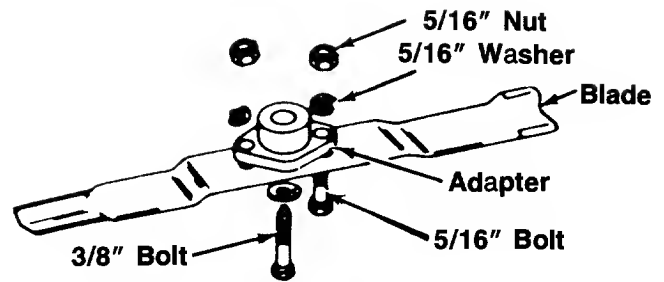


FIGURE 27.

### FUEL FILTER

Your unit is equipped with a replaceable in-line fuel filter. Replace filter whenever contamination or discoloration is noticed. Order replacement filter through your engine authorized service dealer.

### CLEANING ENGINE AND BLADE HOUSING

Any fuel or oil spilled on the machine should be wiped off promptly. Grass, leaves, and other dirt must not be left to accumulate around the cooling fins of the engine or on any part of the machine.

Clean the underside of the blade housing after each mowing.

### BELTS

Check that belts are free of oil or dirt. Wipe the belts periodically with a clean rag.

### ENGINE

**Refer to separate engine manual for all engine maintenance instructions.**

Maintain **engine oil** as instructed in the separate engine manual packed with your unit. Read and follow instructions carefully.

Service **air cleaner** every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced.

The **spark plug** should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each mowing season; check engine manual for correct plug type and gap specification.

### BATTERY MAINTENANCE

1. Check periodically (every two weeks or before and after charging) to be sure electrolyte level is above the lowest line on battery. Add only distilled water or good quality drinking water. NEVER add additional acid or other chemicals to battery after initial activation.
2. The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225, remove battery and recharge.

3. Coat the terminals and exposed wiring with a thin coat of grease or petroleum jelly for longer service and protection against electrolyte corrosion.
4. The battery should be kept clean. Any deposits of acid should be neutralized with soda and water. Be careful not to get this solution in the cells.

## BATTERY STORAGE

1. Charge battery using normal methods. NEVER store discharged battery as it will not recover.
2. When storing battery for extended periods, disconnect battery cables. Removing battery from unit is recommended.
3. Store in cold, dry place.
4. Recharge battery whenever the specific gravity is less than 1.225, before returning to service, or every two months, whichever occurs first.

## COMMON CAUSES FOR BATTERY FAILURE ARE:

1. Overcharging
2. Undercharging
3. Lack of water
4. Loose hold downs and/or corroded connections
5. Excessive loads
6. Battery electrolyte substitutes
7. Freezing of electrolyte

**NOTE: THESE FAILURES DO NOT CONSTITUTE WARRANTY.**

## TIRES

Recommended operating tire pressure is approximately 12 p.s.i. (check sidewall of tire for tire manufacturer's recommended pressure). Maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on all tires.

When installing a tire to the rim, be certain rim is clean and free of rust. Lubricate both the tire and rim generously. Never inflate to over 30 p.s.i. to seat beads.

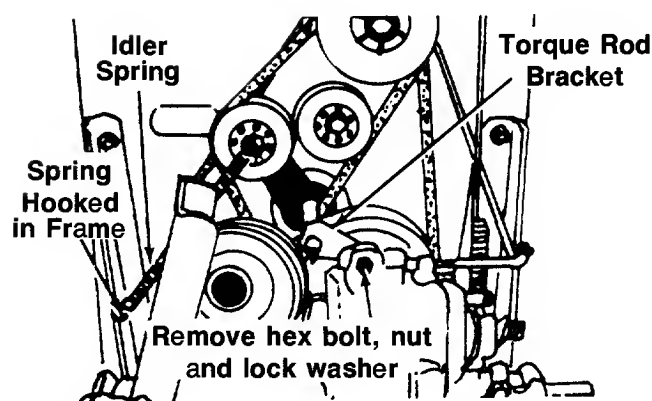


**WARNING: Excessive pressure (over 30 p.s.i.) when seating beads may cause tire/rim assembly to burst with force sufficient to cause serious injury.**

## DRIVE BELT REMOVAL AND REPLACEMENT

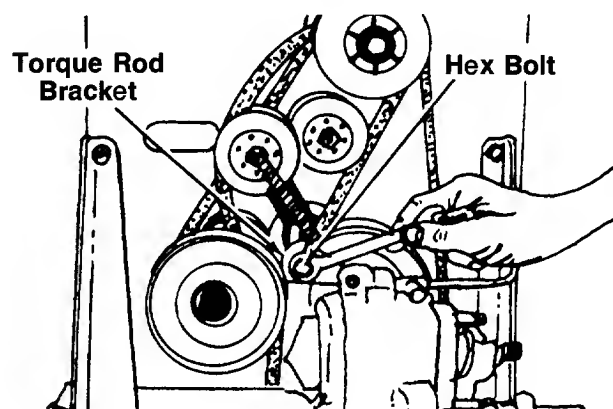
**NOTE:** It is recommended that the entire instructions on belt removal and replacement be read before changing the belts.

1. Disconnect the spark plug wire and ground it against the engine.
2. Remove the deck as described in the separate deck manual.
3. Unhook the idler spring from the rider frame. See figure 28.
4. Remove the hex bolt, nut and lock washer at the torque rod bracket and transaxle. See figure 29.



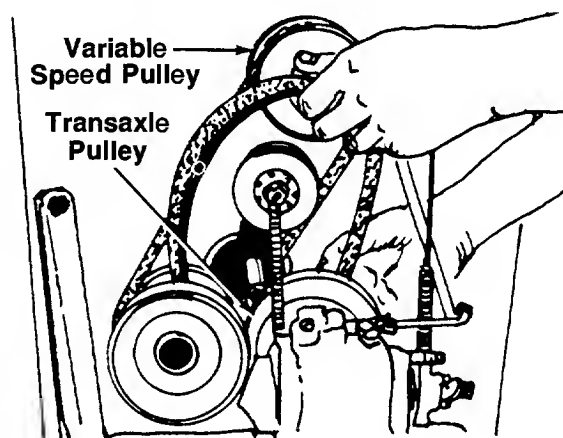
**FIGURE 28.**

5. Remove the hex bolt which holds the torque rod bracket to the torque rod, and remove bracket. See figure 29.



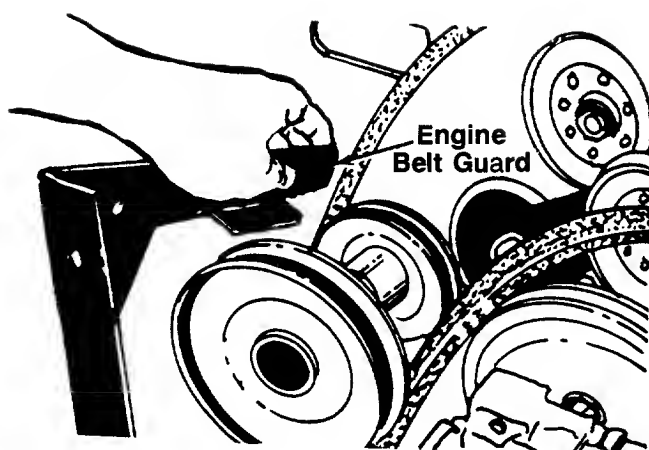
**FIGURE 29.**

6. Slip the "V"-belt off the variable speed pulley and transaxle pulley. See figure 30.



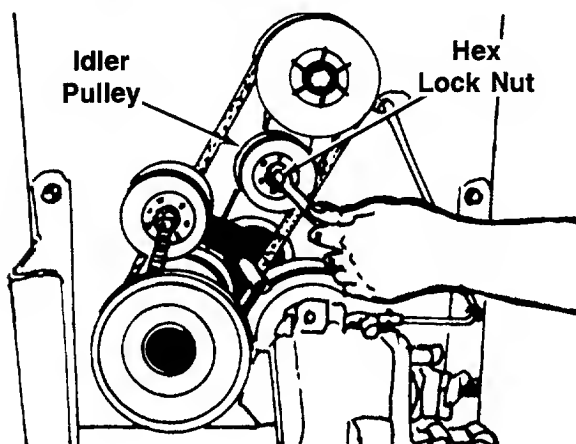
**FIGURE 30.**

7. Remove two hex bolts, nuts and lock washers from the engine pulley belt guard at rider frame to allow the engine pulley belt guard to drop down out of the way. See figure 31.



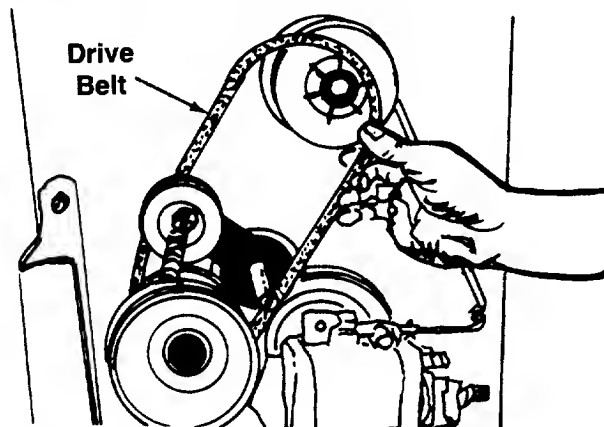
**FIGURE 31.**

8. Remove the idler pulley by removing the hex lock nut. See figure 32.



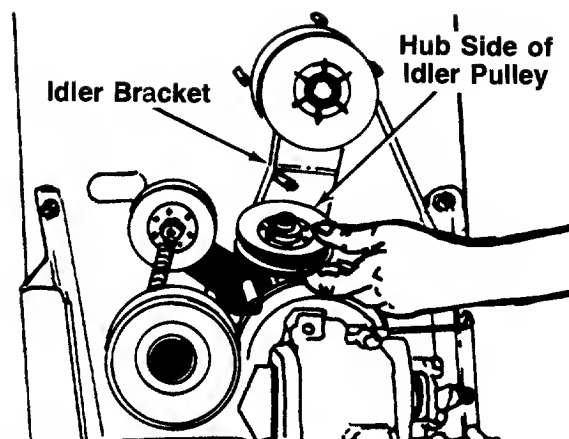
**FIGURE 32.**

9. Remove and replace the "V"-belt. See figure 33.

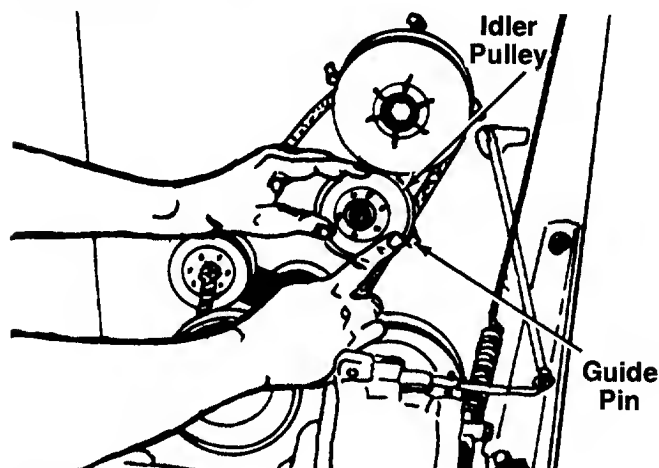


**FIGURE 33.**

10. Upon reassembly of idler pulley, be certain the hub side of idler goes against the idler bracket. See figure 34.
11. When sliding the idler pulley on the idler bracket, be certain the belt is between the pulley and guide pin. See figure 35.



**FIGURE 34.**



**FIGURE 35.**

12. Reverse the above steps (paying close attention to steps 10 and 11) when reassembling the new belts.

**NOTE:** Be certain all belts are inside belt guards and keepers. Also, be sure to reassemble the safety wire at the deck chute.

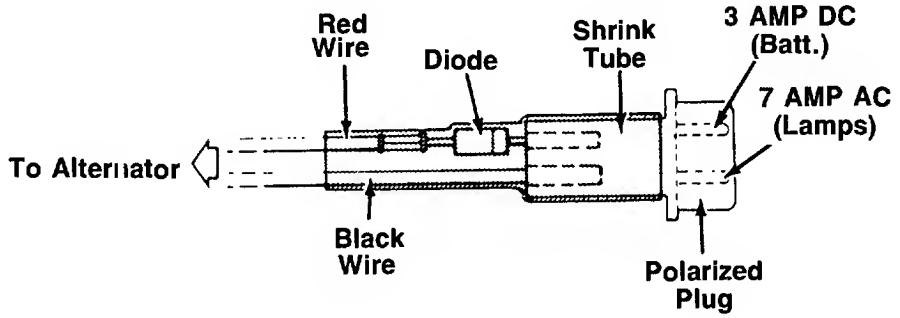
## OFF-SEASON STORAGE

If the machine is to be inoperative for a period longer than 30 days, prepare for storage as follows.

1. Clean the engine and the entire unit thoroughly.
2. Lubricate all lubrication points. Wipe the entire machine with an oiled rag to protect the surfaces.
3. Refer to the engine manual for correct engine storage instructions. The engine must be completely drained of fuel to prevent gum deposits from forming on essential carburetor parts, fuel lines and fuel tanks.
4. Refer to battery storage instructions on page 18.
5. Store unit in a clean, dry area.

**NOTE:** When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rustproof the equipment. Using a light oil or silicone, coat the equipment, especially any chains, springs, bearings and cables.

# TROUBLE SHOOTING CHART

TROUBLE	LOOK FOR	REMEDY
Engine will not crank	Battery installed incorrectly	The battery must be installed with the negative terminal, identified at the terminal post by (Neg, N or -), grounded. The positive terminal (Pos, P or +) attaches to the large cable from the solenoid. The small red wire from the fuse holder or circuit breaker is also attached to the positive terminal.
	Blown fuse or circuit breaker	Replace fuse with 7½ amp. fuse ¼ x 1¼" lg. Circuit breaker will reset itself when it cools off. Fuses or circuit breakers seldom open or fail without a reason. The problem must be corrected. Check for loose connections in the fuse holder. Replace fuse holder if necessary. A dead short may be in the cranking or charging circuit where the insulation may have rubbed through and exposed the bare wire. Replace the wire or repair with electrician's tape if the wire strands have not been damaged. Note: Look for a wire pinched between body panels, burned by the exhaust pipe or muffler or rubbed against a moving part.
	Battery is dead or weak	<p>Use a hydrometer to check the condition of the battery. The Specific Gravity (s.g.) should be 1.265 at 80°F. (1.215 s.g. minimum needed for cranking engine). The reason for the battery failing must be determined (1) Defective battery. Battery will not accept or hold a full charge. (2) Short circuit. Check for grounded wire. (3) Charging system not working.</p> <p>The charging system is an alternator located under the flywheel. It is unregulated and rated 3 amp. at 3600 r.p.m. A diode (rectifier) is located in the output lead just before the wire harness plug on the engine side.</p> <div style="text-align: center;">  </div> <p>The diode changes A.C. to D.C. to charge the battery. A bad diode can either fail to charge the battery or discharge the battery if the alternator is shorted as well as the diode. To test: (1) Disconnect charger lead from the battery (small red wire). (2) Connect 12 V small test lamp between the 3 amp. D.C. charge lead and the positive terminal of the battery. (3) With the engine off, the lamp should not light. If it does, the diode and possibly the alternator should be replaced. (4) Start the engine. The lamp should light. If it does not, the alternator (stator) or lead wire is bad and should be replaced.</p>
	Mechanical failure (Wires and switches)	The interlock system includes two mechanical activated switches which are wired in series in the circuit used to energize the starter solenoid. While testing the interlock system, you will make the mower temporarily unsafe by permitting the engine to be started with the blade and clutch engaged. <b>WARNING:</b> While testing, disengage the clutch, shut off the blade control, set the parking brake and place the gear shift lever in neutral. Attach a wire (minimum 18 gauge) to the positive terminal of the battery and touch the other end to the small terminal on the solenoid. <b>If the engine does not crank:</b> (1) There is a loose connection or poor ground. (2) The solenoid may be bad. The solenoid can be checked by using a heavy wire (#8 gauge minimum) and jumping between the two large terminals. If the engine cranks, the solenoid is bad. (3) If the engine does not crank when you jump the solenoid, have the starter motor tested by an authorized engine dealer. If the engine does crank, the problem is with one of the safety switches, ignition switch or the wire between the fuse holder (or circuit breaker) and the small terminal on the solenoid. Note: Look for a poor connection at the switches or a defective switch. Replace if necessary.
Engine cranks but will not start	Throttle or choke not in starting position	Check owner's guide for correct position for throttle control and choke for starting.
	No spark to spark plug	<p>Spark plug lead disconnected. Connect lead. Hold spark plug lead away from engine block about 1/8". Crank engine. There should be a spark. If not, have engine repaired at authorized engine service dealer.</p> <p>Faulty spark plug. To test, remove spark plug. Attach spark plug lead to spark plug. Ground the spark plug body against the engine block. Crank the engine. The spark plug should fire at the electrode. Replace if it does not.</p>

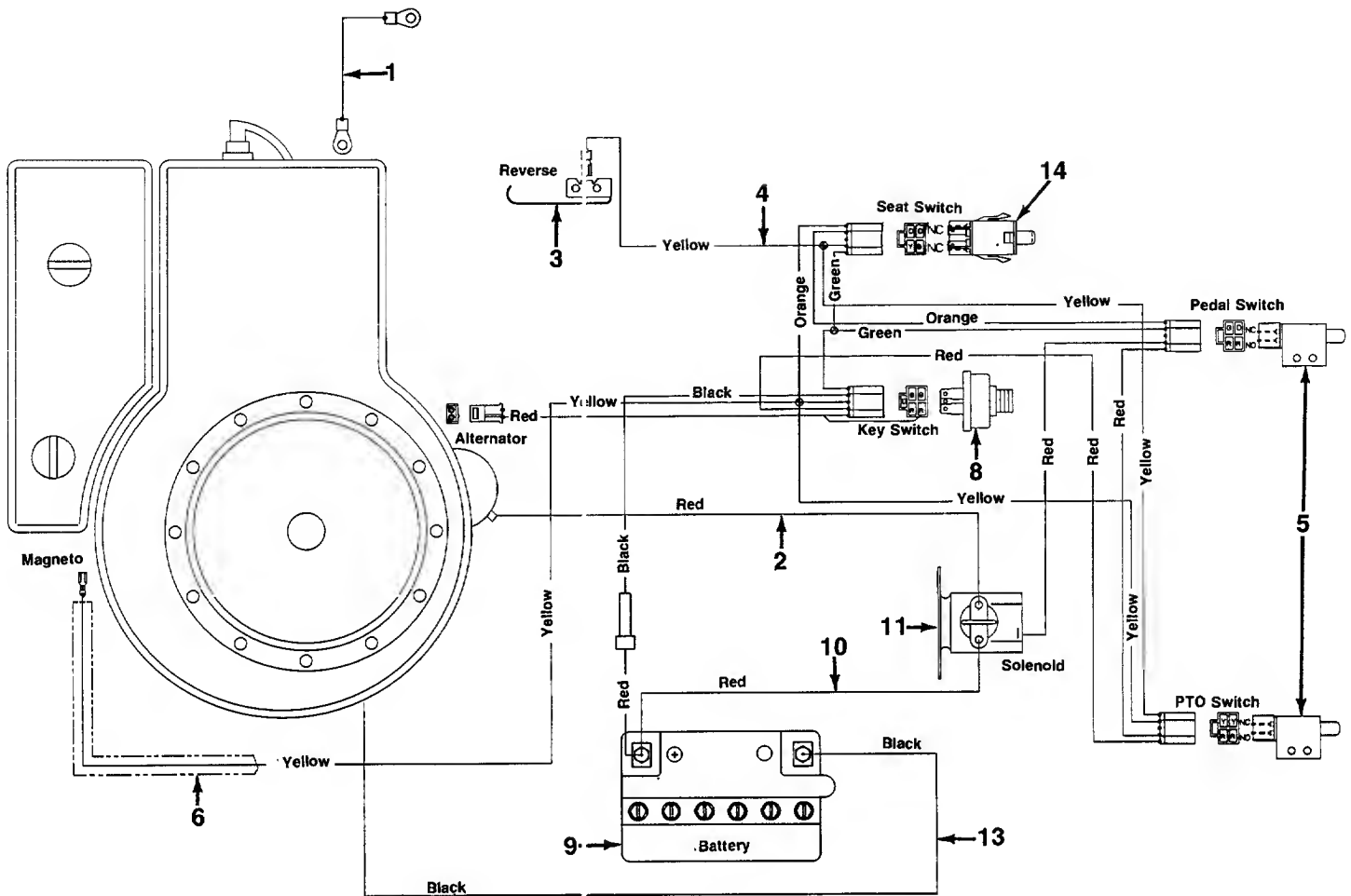
## TROUBLE SHOOTING CHART

TROUBLE	LOOK FOR	REMEDY
	No fuel to the carburetor	Gasoline tank empty. Fill. Fuel line or in-line fuel filter plugged. Remove and clean fuel line. Replace filter if necessary.
	Air filter dirty	If the air cleaner is dirty, the engine may not start. Clean or replace as recommended by the engine manufacturer.
Engine smokes	Engine loses crankcase vacuum	Dipstick not seated or broken. Replace defective part. Engine breather defective. Replace.
Excessive vibration	Bent or damaged blade spindle	<b>Stop engine immediately.</b> Check all pulleys, blade adapters, keys and bolts for tightness and damage. Tighten or replace any damaged parts.
	Bent blade	<b>Stop engine immediately.</b> Replace damaged blade. Only use original equipment blades.
Mower will not discharge grass or leaves uncut strips	Engine speed low Transmission selection Blades short or dull	Throttle must be set between 3/4 and full throttle. Use lower transmission speed. The slower your ground speed, the better the quality of cut. Sharpen or replace blades (uncut strip problem only).

## BELT TROUBLE SHOOTING CHART

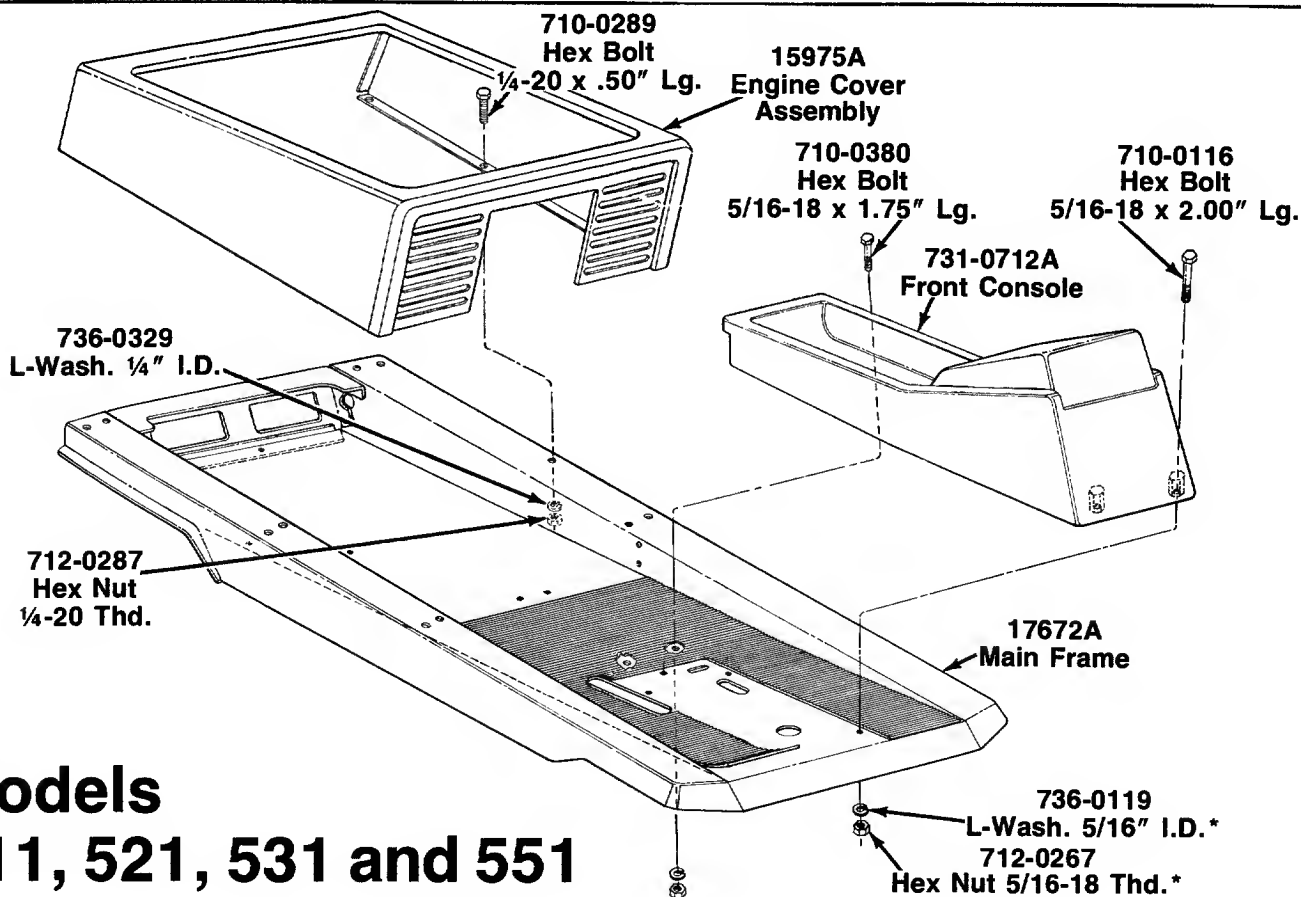
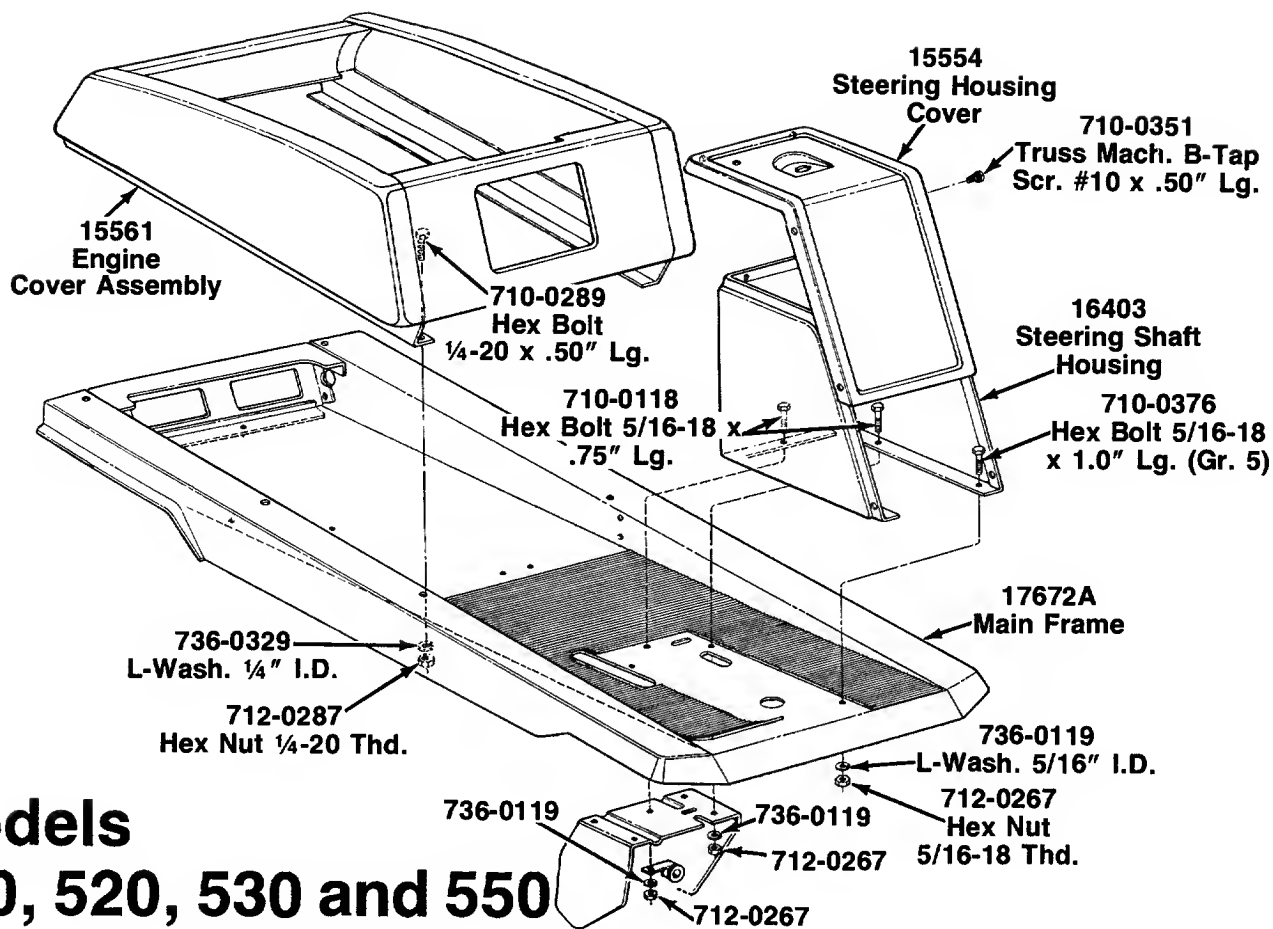
Failure	Probable Cause	Corrective Action
1 Broken Belt	1A Sudden stop or shock load to belt  1B Incorrect belt used  1C Abrupt engagement 1D Defective or damaged belt	1A Inspect rider for cause such as foreign objects stuck in between deck and frame or belt path. Remove obstruction and inspect for damage. Replace belt per parts list in this manual. 1B Replace with proper belt only. See parts list in this manual. Roll belt onto pulley. <b>Do not</b> use a screwdriver to push or pry belt onto pulley. The sharp bend can damage internal cords. 1C Slower engagement required. 1D Refer to 1B.
2 Belt Shreds	2A Belt guides or guards incorrectly adjusted 2B Pulleys not aligned  2C Bad pulley—rough, rusty, chipped, bent, frozen bearing, etc.	2A Belt guides and guards should be adjusted to approximately 1/16 to 1/8 inch from belt when in the engaged position. 2B Realign pulleys to be within approximately 1/16 inch of each other. Check with straight edge. Be sure fastening hardware is tight. 2C Replace as necessary. Adjust as per 2B.
3 Belt Comes Off	3A Belt stretched 3B Broken or weak idler spring	3A Adjust as necessary when applicable. Refer to 1B. 3B Replace.

# Models 510 thru 551

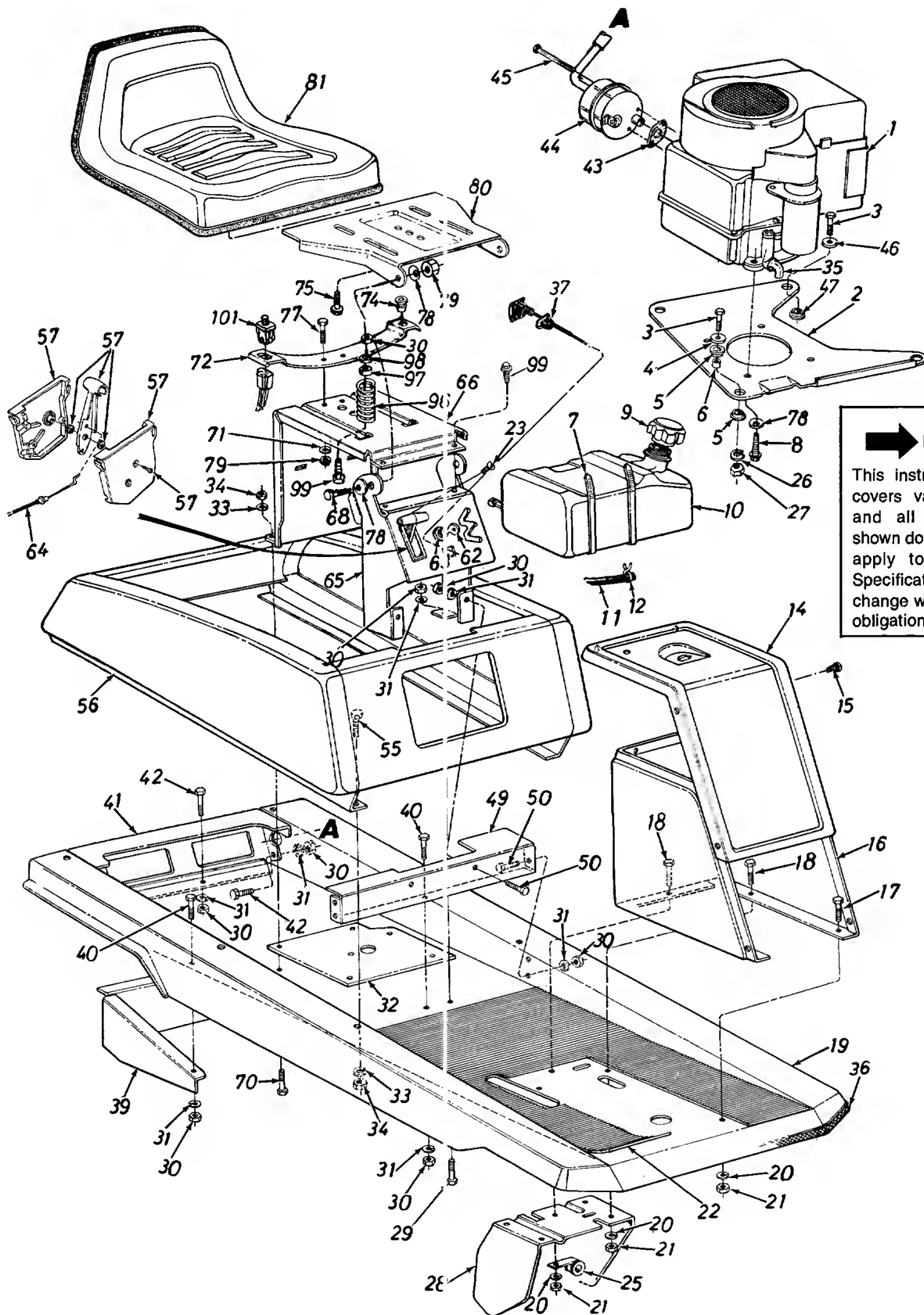


## PARTS LIST FOR ELECTRICAL SYSTEM MODELS 510 THRU 551 RIDING MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION
1	725-0977		Elec. Wire 8 Ga. x 9.0" Lg.
2	725-0424		Elec. Wire
3	732-0615		Spring Switch—Reverse
4	725-1431		Wire Harness
5	725-3169		Safety Switch
6	731-0757		Convolute Tubing 29" Lg.
8	725-0267		Ignition Switch
9	725-0514A		Battery 12V
10	725-0927		Elec. Wire Red w/Boot
11	725-1426		Solenoid
13	725-0975		Elec. Wire 8 Ga. x 9.0" Lg.
14	725-1441		Seat Switch



# Models 510 thru 551



## NOTE

This instruction manual covers various models, and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.



# Models 510 thru 551

## PARTS LIST FOR MODELS 510 THRU 551 RIDING MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	—		Engine	41	15571		Rear Frame Panel
2	15572A		Engine Mounting Plate	42	710-0621		Hex Bolt 5/16-18 x .50" Lg.*
3	710-0158		Hex Bolt 5/16-24 x 1.25" Lg.*	43	721-0207		Exhaust Gasket (8 H.P.)
4	736-0231		FI-Wash. .330" I.D. x 1.125" O.D.		721-0208		Exhaust Gasket
5	722-0153		Engine Mounting Grommet	44	751-0412		(10, 11 & 12 H.P.)
6	750-0539		Spacer .315" I.D. x .50" O.D. x .520" Lg.		751-0425		Muffler Ass'y. (8 H.P.)
7	726-0209		Cable Tie 30.6 Lg.		751-0413		Spark Arrester
8	710-0502A		Hex Wash. Hd. Self-Tap Scr. 3/8-16 x 1.25" Lg.		751-0426		For 8 H.P. Muffler†
9	723-0155		Gas Gauge (Used w/Black Fuel Tank)	45	738-0635		Muffler Ass'y. (10, 11 & 12 H.P.)
	751-3071		Gas Cap (Used w/White Fuel Tank)		738-0636		Spark Arrester For
10	751-0368		Fuel Tank (Black)	46	736-0343		10, 11 & 12 H.P. Muffler†
	751-0368A		Fuel Tank (White)	47	736-0392		Shld. Bolt (8 H.P.)
11	751-0535-26		Fuel Line—26" Lg.	49	15604		Shld. Bolt (10, 11 & 12 H.P.)
12	726-0205		Hose Clamp—1/2" O.D. Tube	50	710-0118		FI-Wash. .330" I.D. x 1.25" O.D.
14	—		Refer to Page 23	55	710-0289		Flange Wash. .320" I.D. x .750" O.D.
15	—		Refer to Page 23	56	—		Seat Support & Frame Brkt.
16	—		Refer to Page 23	57	831-0823A		Hex Bolt 5/16-18 x .75" Lg.*
17	—		Refer to Page 23	62	725-0201		Hex Bolt 1/4-20 x .50" Lg.*
18	—		Refer to Page 23	63	725-0267		Refer to Page 23
19	—		Refer to Page 23	64	746-0503		Throttle Control Box Ass'y.
20	—		Refer to Page 23	65	16483A		Ignition Key
21	—		Refer to Page 23	66	15606A		Ignition Switch
22	735-0220A		Floor Mat	68	710-0118		Throttle Control Wire
23	710-0779A		Truss Mach. AB-Tap Scr. #10 x .50" Lg.	69	712-0267		Front Seat Bracket
25	726-0175		Clamp	70	710-0855		Rear Seat Bracket
26	736-0119		L-Wash. 5/16" I.D.*	71	736-0119		Hex Bolt 5/16-18 x .75" Lg.*
27	712-0123		Hex Nut 5/16-24 Thd.*	72	732-0632		Hex Nut 5/16-18 Thd.*
28	17677		Clutch-Brake Pedal Ass'y.	74	731-0555A		Hex Tap Scr. 1/4-20 X 1.0" Lg.
29	710-0118		Hex Bolt 5/16-18 x .75" Lg.*	75	710-0623		L-Wash. 5/16" I.D.*
30	712-0267		Hex Nut 5/16-18 Thd.*				Seat Spring
31	736-0119		L-Wash. 5/16" I.D.*	77	710-0118		Grommet
32	783-0005	N	Variable Speed Mounting Plate	78	736-0242		Hex Wash. Hd. Tap Scr. 3/8-16 x 3/4" Lg.
33	736-0329		L-Wash. 1/4" I.D.*	79	712-0158		Hex Bolt 5/16-18 x .75" Lg.*
34	712-0287		Hex Nut 1/4-20 Thd.*	80	15607D		Bell-Wash. .345" I.D. x .88" O.D.
35	737-0125		90° Elbow Male To Female	81	757-0345		Hex Cent. L-Nut 5/16-18 Thd.
36	731-0511-18		Trim Strip 18" Lg.	96	732-0633		Seat Pivot Bracket
37	746-0614A		Choke Control	97	722-0160		Seat Ass'y. Comp.
39	15552		Transaxle Support Ass'y.	98	736-0159		Compression Spring 2.7" Lg.
40	710-0118		Hex Bolt 5/16-18 x .75" Lg.*	99	710-0376		Bushing
				101	725-1441		FI-Wash. .344" I.D. x .875"
							Hex Bolt 5/16-18 x 1" Lg.
							(Gr. 5)
							Seat Switch

### †Optional Parts

\*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

NOTE: The engine is not under warranty by the mower manufacturer... If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."



CODE: N notates a new part (not previously existing). A three digit number is the color code. Specify color code as shown below if color or finish is important when ordering parts. [i.e., 638 for Red Finish].

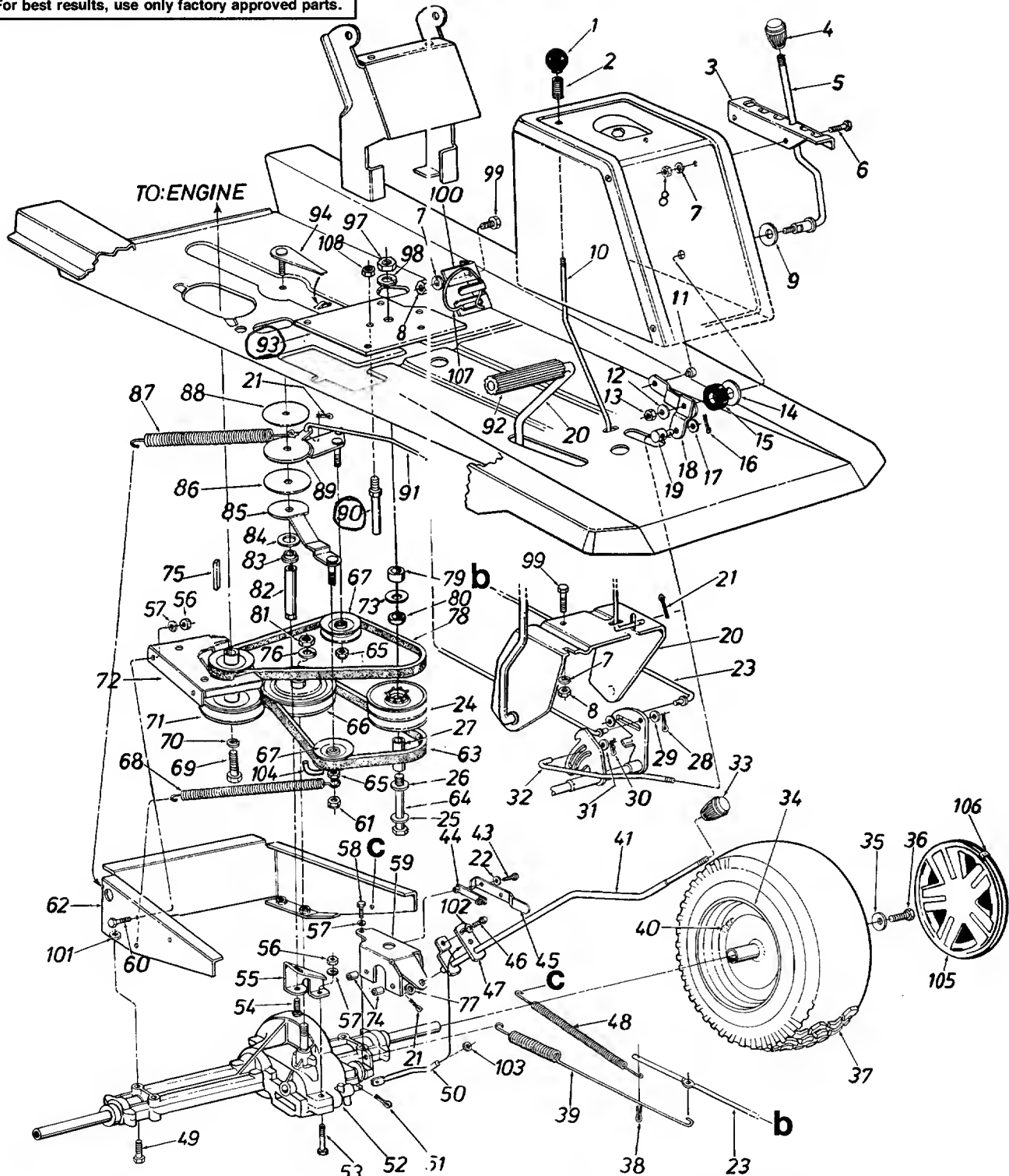
### Color Codes

456—Radiant Tangerine  
460—Green Flake  
483—Charcoal Grey  
498—Yellow  
499—Beige  
621—Brilliant Fire Mist

629—Silver Flake  
630—Metallic Blue  
637—Black  
638—Red  
640—Green  
646—CM Blue

# Models 510 thru 551

**IMPORTANT:** Use only Original Equipment Manufacturer (O.E.M.) V-belts when replacing belts. They are of special construction (type of cord, cord location, length, etc.). Use of V-belts other than O.E.M. belts generally will provide only temporary service. For best results, use only factory approved parts.



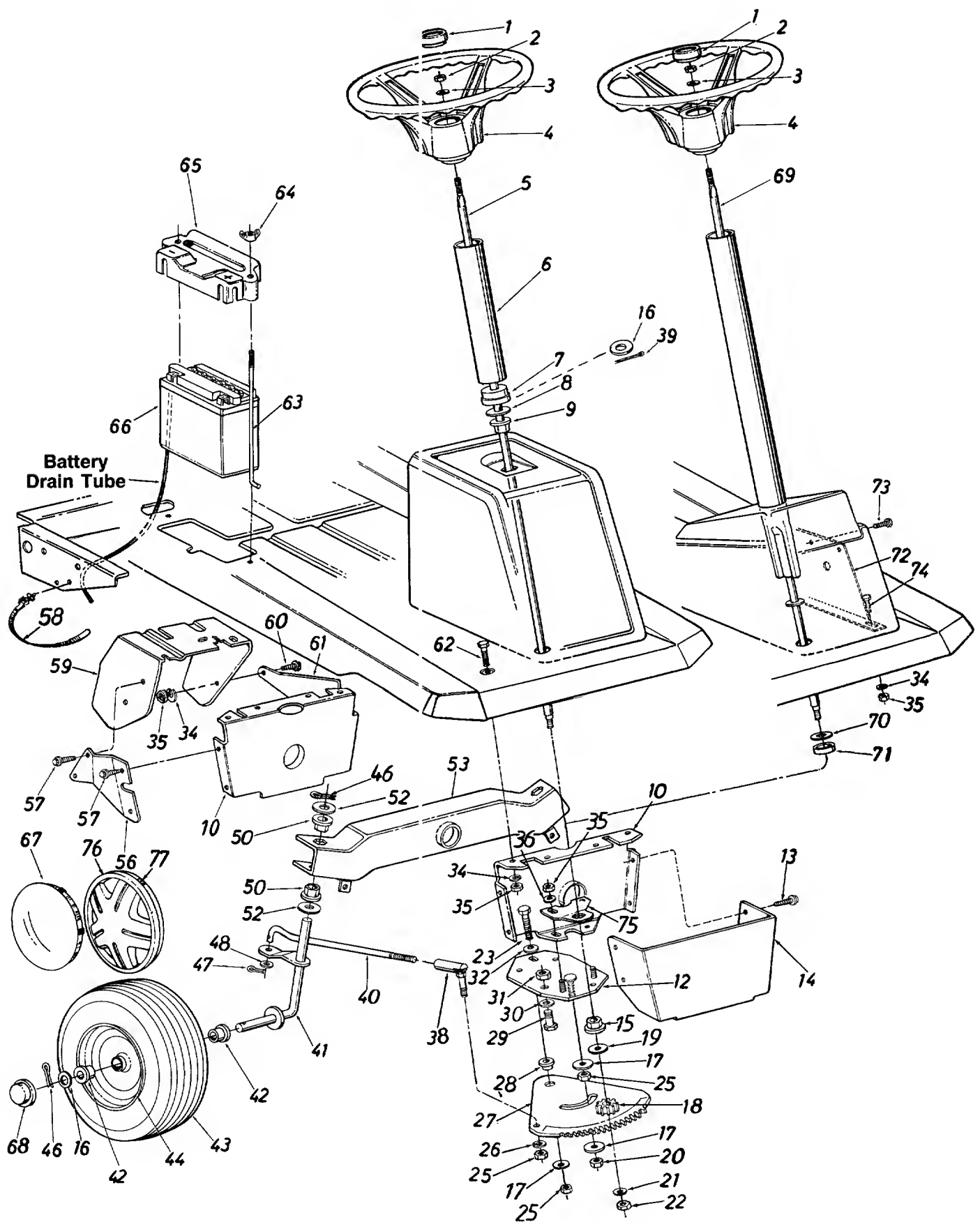
**NOTE:** If brand of tire is important, order by part number and description (description is printed on the sidewall of tire) [i.e. Armstrong Super Turf, Goodyear Softtrac, Carlisle Turf Saver, etc.].

# Models 510 thru 551

## PARTS LIST FOR MODELS 510 THRU 551 RIDING MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	720-0187		Ball Knob 1/4-20 Thd. 1.25"	58	710-0965		Self-Tap Mach. Scr. Type "C"
2	732-0437		Compression Spring				1/4-20 x 1.37" Lg.
3	16389		Speed Index Bracket	59	17515		Shift Lever Support Brkt.
4	720-0232		Shift Knob	60	710-0597		Hex Bolt 1/4-20 x 1.00" Lg.*
5	747-0652		Speed Control Lever	61	712-0262		Hex L-Nut 3/8-24 Thd.
6	710-0323		Truss Mach. Scr. 5/16-18 x .75" Lg.*	62	15552		Transaxle Support Ass'y.
7	736-0119		L-Wash. 5/16" I.D.*	63	754-0240		V-Belt
8	712-0267		Hex Nut 5/16-18 Thd.*	64	710-0693		Hex Bolt 3/8-16 x 4.5" Lg.
9	736-0253		Bell-Wash. .345" I.D. x .88"	65	712-0116		Hex Ins. L-Nut 3/8-24 Thd.
10	747-0427		Brake Locking Rod (510, 520, 530 & 550)	66	756-0390	N	V-Pulley (717-0775 Trans.)
	747-0450		Brake Locking Rod (511, 521, 531 & 551)	67	756-0116		"V" Pulley (618-0025 Trans.)
11	731-0493		Cap	68	732-0308		V-Belt Idler .38" I.D. x 3.06"
12	736-0242		Bell-Wash. .345" I.D. x .08"	69	710-0314		Ext. Spring .50" O.D. x 6.37"
13	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	70	736-0171		Hex Bolt 7/16-20 x 1.00" Lg.
14	736-0100		FI-Wash. .531" I.D. x 1.25" O.D.	71	756-0391		L-Wash. 7/16" I.D.
15	735-0219		Rubber Washer		756-0509		Engine Pulley (30" Deck)
16	714-0145		Intern. Cotter Pin 1/2" Dia.		756-0512		Engine Pulley (32" Deck)
17	736-0275		FI-Wash. .34" I.D. x .68" O.D.	72	15623		Engine Pulley (38" Deck)
18	16396		Speed Control Lever Brkt. Ass'y.	73	736-0219		Upper Eng. Belt Guard
19	711-0677		Ferrule—Engagement	74	750-0686		Bell-Wash. .4" I.D. x 1.12" O.D.
20	17677		Clutch/Brake Pedal Ass'y.	75	714-0114		Spacer .256" I.D. x .50" O.D.
21	714-0507		Cotter Pin 3/32" Dia. x .75" *	76	736-0921		Sq.-Key 1/4" x 2.00" Lg.
22	736-0426		Plastic Washer		736-0427		L-Wash. 1/2" I.D.* (717-0775 Trans.)
23	747-0431		Brake Rod				Bell-Wash. .567" I.D. x 1.125" (618-0025 Trans.)
24	717-0884		Variable Speed Pulley Ass'y.	77	736-0226		FI-Wash. .469" I.D. x .88" O.D.
25	736-0247		FI-Wash. .4" I.D. x 1.25" O.D.	78	754-0241		V-Belt
26	741-0405		Thrust Brg. 1.25" O.D. x .56" I.D.	79	750-0706		Spacer 1.00" x .380" O.D.
27	750-0705		Spacer Sleeve 2.71"	80	741-0405		Thrust Wash. .56" I.D. x 1.25" O.D.
28	714-0115		Cotter Pin 1/8" Dia. x 1.25" *	81	712-0922		Hex Nut 1/2-20 Thd.
29	736-0275		FI-Wash. .34" I.D. x .60" O.D.		712-3035	N	Hex Jam Nut 9/16-18 Thd. (618-0025 Trans.)
30	714-0104		Intern. Cot-Pin 5/16" Dia.	82	711-0676		Torque Rod
31	736-0275		FI-Wash. .34" I.D. x .60" O.D.	83	748-0294		Flange Bearing .378
32	747-0394A		Speed Control Link	84	736-0187		FI-Wash. .640" I.D. x 1.24"
33	720-0232		Shift Knob	85	15569A		Idler Bracket Ass'y.
34	734-0594		Rear Wheel Rim Only	86	736-0283		Thrust Wash. .635" I.D.
35	736-0242		Bell-Wash. .345" I.D. x .88"	87	732-0556		Extension Spring 7.58" Lg.
36	710-0627		Hex L-Bolt 5/16-24 x .75" Lg.	88	736-0284		Thrust Wash. .385" I.D.
37	734-0591		Rear Wheel Ass'y.—Comp.	89	15585		Idler Bracket Ass'y. For Clutch
	734-0275		Tire Only	90	711-0640		Belt Guard Pin 3/8-16 x 2.75" Lg.
38	714-0470		Cotter Pin 1/8" Dia. x 1.25" *	91	747-0560		Clutch Rod
39	732-0389		Extension Spring 17.0" Lg.	92	735-0196		Foot Pad
40	734-0255		Air Valve	93	703-0005		Variable Speed Mtg. Plate
41	16475		Shift Lever Ass'y.	94	15642		Weld Bolt Brkt. Ass'y.
43	710-0227		Hex Wash. Hd. Scr. #8 x .5" Lg.	97	712-0798		Hex Nut 3/8-16
44	726-0222		Insulator Nut	98	736-0217		L-Wash. 3/8 Heavy Duty
45	732-0615		Spring Switch	99	710-0118		Hex Bolt 5/16-18 x .75" Lg.*
46	710-0289		Hex Bolt 1/4-20 x .50" Lg.*	100	17839		Speed Control Rod Brkt.
47	16476		Shift Lever Adjusting Link	101	712-0265	N	Hex Sems Nut 5/16-18 Thd.
48	732-0487		Ext. Spring 8 1/4" Lg.	102	736-0270		Bell-Wash. .265" I.D. x .75" O.D.
49	710-0378		Hex Bolt 5/16-18 x 2.5" Lg.	103	726-0231		Push on Retaining Ring
50	747-0668		Shift Rod	104	747-0758		Belt Guard
51	714-0149B		Intern. Cotter Pin	105	734-1614		Hub Cap—Beige (Optional)
52	—		Transaxle (See Breakdowns)		734-1504		Hub Cap—Grey (Optional)
53	710-0136		Hex Bolt 1/4-20 x 1.75" Lg.*	106	727-0425		Spring Clip (Used w/Ref. #105)
54	710-0180		Hex Bolt 3/8-24 x .75" Lg.*	107	732-0525		Comp. Spring Clip
55	15564A		Torque Rod Bracket	108	712-0181		Hex Top L-Jam Nut 3/8-16 Thd.
56	712-0287		Hex Nut 1/4-20 Thd.*				
57	736-0329		L-Wash. 1/4" I.D.*				

# Models 510 thru 551



# Models 510 thru 551

## PARTS LIST FOR MODELS 510 THRU 551 RIDING MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	731-0220	N	Steering Wheel Cap	39	714-0115	N	Cotter Pin 1/8" Dia. x 1.00" Lg.*†
2	712-0237		Hex L-Nut 5/16-24 Thd.	40	747-0417		Steering Tie Rod
3	736-0242		Bell-Wash. .345" I.D. x .88" O.D.	41	15616A		Front Axle Ass'y.—R.H.
4	731-0805		Steering Wheel Ass'y.		15617A		Front Axle Ass'y.—L.H. (Not Shown)
5	738-0700		Steering Shaft†	42	◀		Flange Bearing
6	750-0568		Steering Tube Spacer (Chrome)†	43	◀		Front Wheel Ass'y. Comp.
7	731-0651		Steering Tube Spacert	44	◀		Front Wheel Rim Only
8	736-0187		Fl-Wash. .635" I.D. x 1.24" O.D.†	46	714-0470		Cotter Pin 1/8" Dia. x 1.25" *
9	741-0225		Hex Flange Bearing†	47	714-0115		Cotter Pin 1/8" Dia. x 1.00" *
10	15613A		Pivot Bar Bracket	48	736-0300		Fl-Wash. .385" I.D. x .87"
12	17653A		Steering Gear Support Brkt.	50	741-0225		Hex Flange Bearing
13	710-0776A		Hex Wash. Hd. AB-Tap Scr. 1/4 x .62" Lg.	52	736-0156		Fl-Wash. .635" I.D. x 1.12"
14	15608		Steering Gear Cover	53	15610A		Pivot Bar Ass'y.
15	741-0225		Hex Flange Bearing	56	15694A		Bracket Reinforcement—R.H.
16	736-0285		Fl-Wash. .640" I.D. x 1.5" O.D.	57	710-0776A		Hex Wash. Hd. AB-Tap Scr. 1/4 x .62" Lg.
17	736-0320		Fl-Washer 3/8" I.D. x 1.37" O.D.	58	726-0154		Cable Tie**
18	748-0290		Steering Pinion Gear	59	17677		Clutch-Brake Pedal Ass'y.
19	736-0272		Fl-Wash. .510" I.D. x 1" O.D.	60	710-0118		Hex Bolt 5/16-18 x .75" Lg.*
20	712-0116		Hex L-Nut 3/8-24	61	15699A		Bracket Reinforcement—L.H.
21	736-0275		Fl-Wash. .34" I.D. x .68" O.D.	62	710-0118		Hex Bolt 5/16-18 x .75" Lg.*
22	712-0123		Hex Nut 5/16-24 Thd.	63	711-0222		Battery Hold Down Rod
23	710-0459		Hex Bolt 3/8-24 x 1.5" Lg. (Grade 5)	64	712-0113		Wing Nut Solid 1/4-20 Thd.
25	712-0241		Hex Nut 3/8-24 Thd.*	65	731-0708		Battery Hold Down Cover
26	736-0169		L-Wash. 3/8" I.D.*	66	725-0514A		12V Battery
27	717-0472A		Steering Gear Segment	67	734-1219		Chrome Hub Cap (Optional)
28	738-0541		Shoulder Spacer .622" Dia. x .218	68	731-0484A		Plastic Hub Cap (Optional)
29	710-0689		Hex Bolt (Nylon) 1/2-13 x .75"	69	16513		Steering Shaft Ass'y.††
30	736-0160		Fl-Wash. .530" I.D. x .930"	70	736-0187		Fl-Wash. .635" I.D. x 1.24" O.D.††
31	712-0206		Hex Nut 1/2-13 Thd.*	71	750-0532		Spacer (Plastic)††
32	736-0105		Bell-Wash. .385" I.D. x .88"	72	16069		Reinf. Brkt. Ass'y.††
33	712-0241		Hex Nut 3/8-24 Thd.*	73	710-0323		Truss Mach. Scr. 5/16-18††
34	736-0119		L-Wash. 5/16" I.D.*	74	710-0116		Hex Bolt 5/16-18 x 2.00" Lg.††
35	712-0267		Hex Nut 5/16-18 Thd.*	75	17656A		Steering Gear Adjuster Ass'y.
36	736-0271		Spr. Wash. .32" I.D. x .62" O.D.	76	734-1610		Hub Cap—Beige (Optional)
38	723-0156		Ball Joint Ass'y. 3/8-24 Thd.		734-1502		Hub Cap—Grey (Optional)
				77	727-0425		Spring Clip (Used w/Ref. 76)

†Models 510, 520, 530 and 550 Only  
††Models 511, 521, 531 and 551 Only

\*For faster service obtain standard nuts, bolts and washers locally.  
If these items cannot be obtained locally, order by part number and size as shown on parts list.

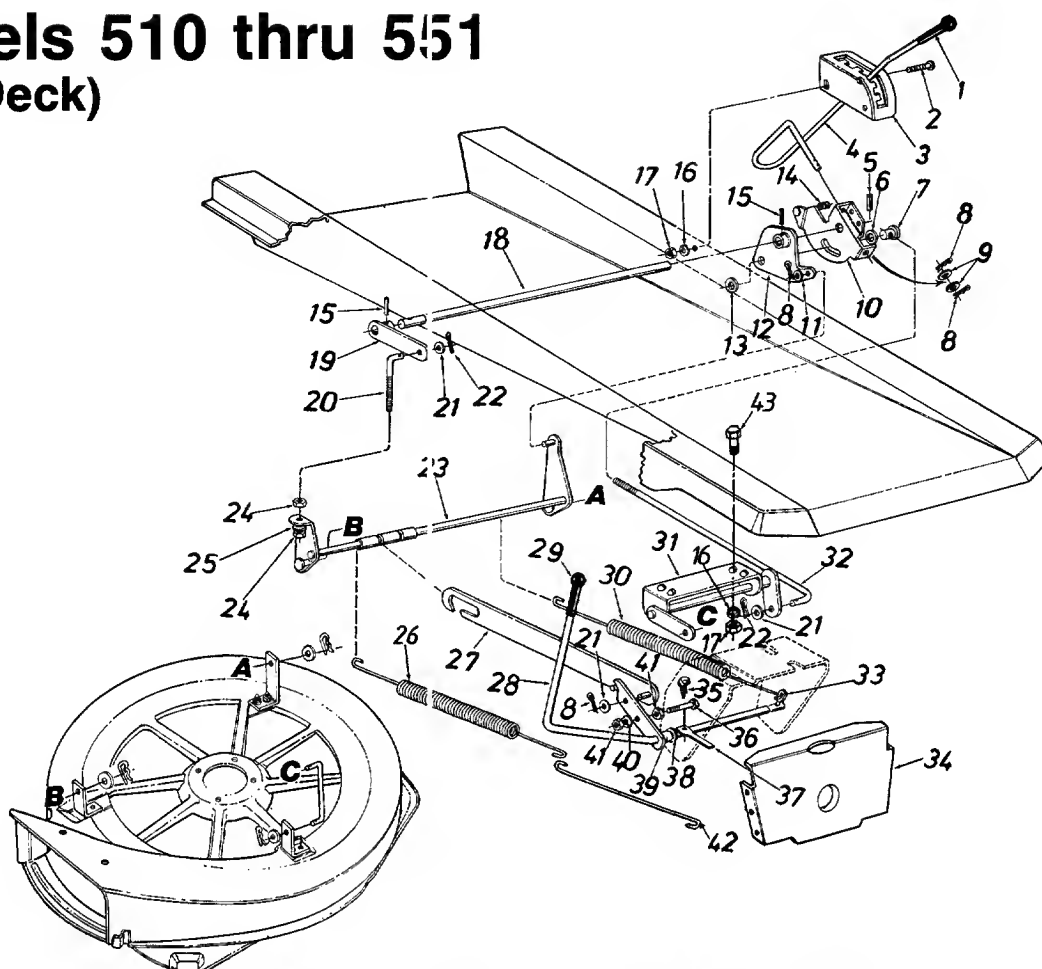
### ◀FRONT WHEEL CHART

Description	11 x 4.0 Nylon Brg.	11 x 4.0 Ball Brg.
Wheel Assembly Comp.	734-1454	734-1686
Tire Only	734-1382	734-1382
Rim Only	734-1455	734-1683
Bearing	741-0487	741-0569
Air Valve	734-0255	734-0255
Grease Fitting	737-0280	—

**NOTE:** If brand of tire is important, order by part number and description (description is printed on the sidewall of tire) [i.e. Armstrong Super Turf, Goodyear Softrac, Carlisle Turf Saver, etc.].

EXPORTS ONLY

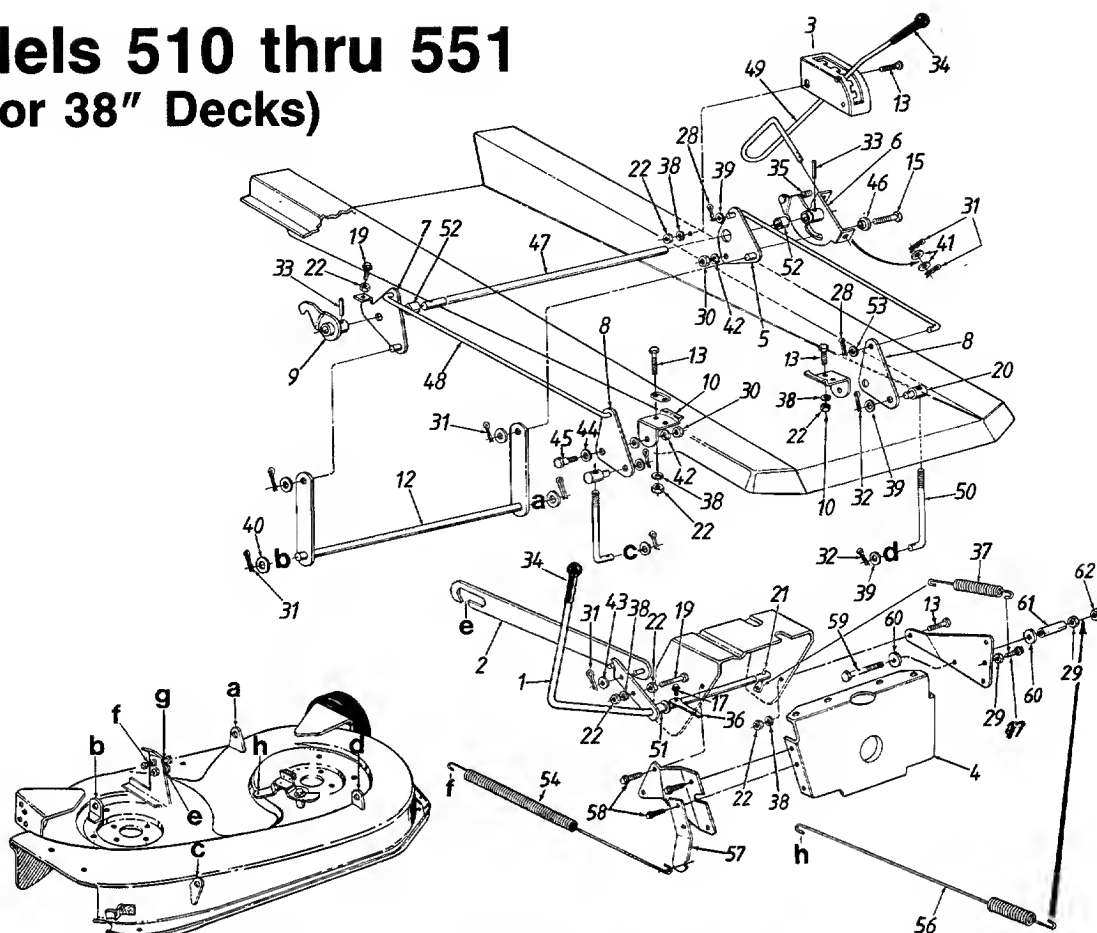
# Models 510 thru 551 (30" Deck)



**PARTS LIST FOR MODELS 510 THRU 551 RIDING MOWERS WITH 30" DECK**

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	720-0223		Grip	22	714-0145		Intern. Cotter Pin 1/2" Dia.
2	710-0323		Truss Mach. Scr. 5/16-18 x .75" Lg.*	23	15600A		Deck Link Ass'y.—Rear
3	16397		Deck Index Bracket	24	712-0798		Hex Nut 3/8-16 Thd.*
4	747-0651		Deck Lift Handle	25	736-0169		L-Wash. 3/8" I.D.*
5	715-0134		Spring Pin Spir. 3/16" Dia. x 1.50" Lg.	26	732-0540	0530	Extension Spring .73" O.D. x 13.84" Lg.
6	736-0187		FI-Wash. .385" I.D. x .87" O.D.	27	15644A		Deck Drive Control Bracket
7	711-0749		Adj. Ferrule Deck Lift Handle	28	15568		Blade Engagement Lever Ass'y.
8	714-0115		Cotter Pin 1/8" Dia. x 1.00" Lg.*	29	720-0223		Grip
9	736-0160		FI-Wash. .531" I.D. x .930" O.D.	30	732-0540		Extension Spring .73" O.D. x 13.84" Lg.
10	16402A	N	Deck Lift Handle Retainer Ass'y.	31	15573A		Deck Lift Ass'y.—Front
11	736-0300		FI-Wash. .385" I.D. x .87" O.D.	32	747-0426		Deck Lift Connecting Rod
12	15578		Deck Lift Brkt. Ass'y.—L. I.	33	711-0753		Clevis Pin Special .250" Dia.
13	736-0162		FI-Wash. .635" I.D. x 1.01" O.D.	34	15613A	N	Pivot Bar Bracket
14	732-0430		Compression Spring .50" Dia. x 1.0" Lg.	35	710-0642		Hex TT-Tap Scr. 1/4-20 x .75" Lg.
15	715-0114		Spring Pin Spir. 1/4" Dia. x 1.50" Lg.	36	710-0805		Hex Bolt 5/16-18 x 1.50" Lg. (Grade 5)
16	736-0119		L-Wash. 5/16" I.D.*	37	732-0435		Switch Actuator
17	712-0267		Hex Nut 5/16-18 Thd.*	38	736-0160		FI-Wash. .531" I.D. x .930" O.D.
18	738-0550		Rear Hgt. Adj. Shaft	39	750-0760		Spacer .511" I.D. x .70" O.D. x .38" Lg.
19	15609A		Deck Lift Brkt. Ass'y.—R.H.	40	736-0119		L-Wash. 5/16" I.D.*
20	710-0866		Deck Adj. Scr. 3/8-16 Thd.	41	712-0267		Hex Nut 5/16-18 Thd.*
21	736-0300		FI-Wash. .385" I.D. x .87" O.D.	42	732-0451B		Spring Hook
				43	710-0118		Hex Bolt 5/16-18 x .75" Lg.

# Models 510 thru 551 (32" or 38" Decks)

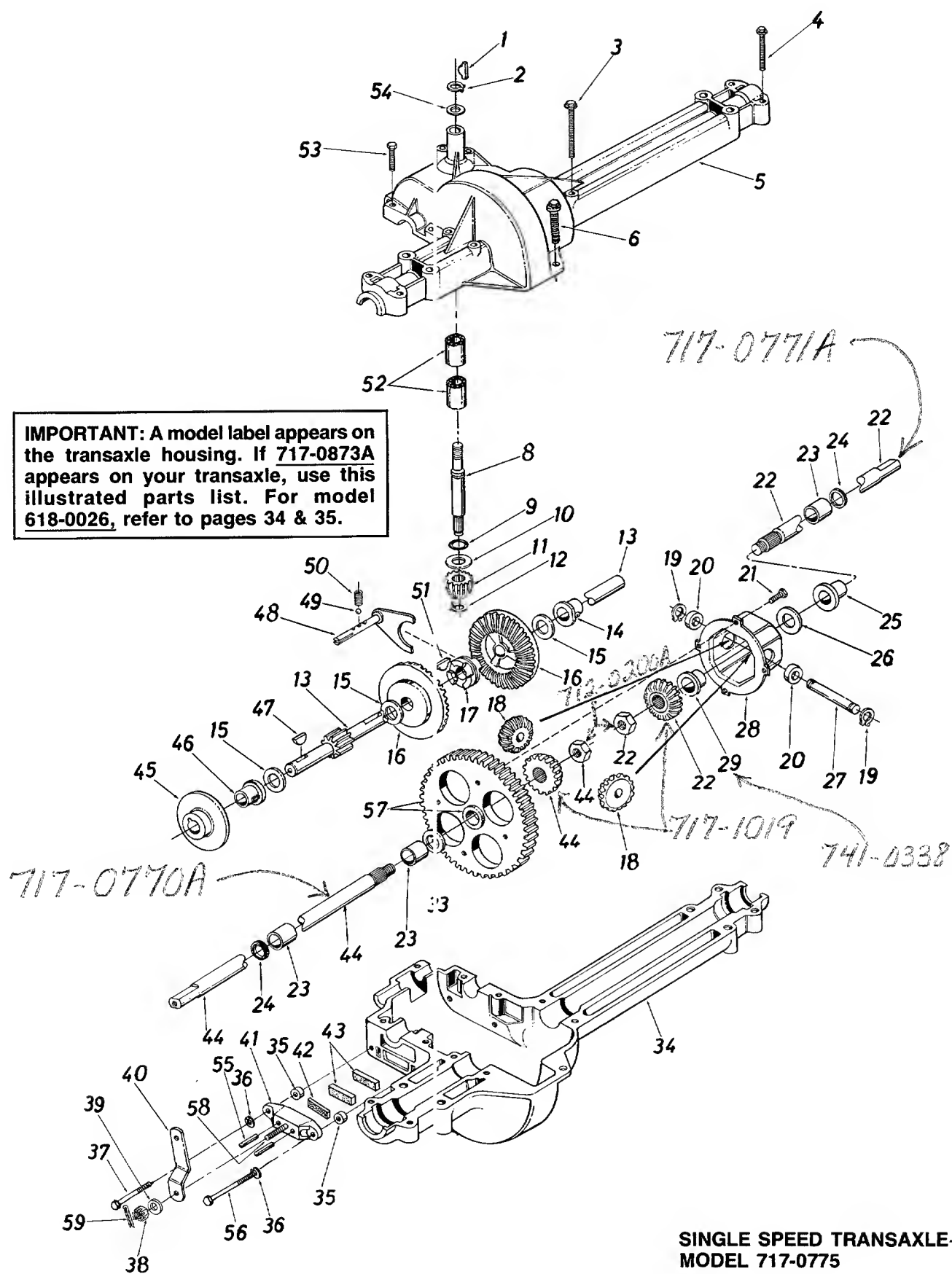


**PARTS LIST FOR MODELS 510 THRU 551 RIDING MOWERS WITH 32" OR 38" DECKS**

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	15568		Blade Engagement Lever Ass'y.	37	732-0565		Ext. Spring 5.86" Lg.
2	15644A		Deck Drive Control Brkt. Ass'y.	38	736-0119		L-Wash 5/16" I.D.
3	16397		Deck Index Bracket	39	736-0140		FI-Wash. .385 I.D. x .62
4	15613A		Pivot Bar Brkt.	40	736-0156		FI-Wash. .635 I.D. x 1.12
5	17108		Deck Lift Brkt. Ass'y.	41	736-0160		FI-Wash. .531 I.D. x .930
6	17109		Deck Lift Handle Retainer Ass'y.	42	736-0169		L-Wash. 3/8" I.D.*
7	17111		Deck Lift Brkt. Ass'y.	43	736-0300		FI-Wash. .385 I.D. x .87 O.D.
8	17112		Deck Lift Bracket	44	736-0232		Spring Washer .530 I.D.
9	17114A		Deck Lift Float Brkt Ass'y.	45	738-0183		Shld. Bolt .500" Dia. x .215"
10	17115		Deck Lift Pivot Brkt.	46	738-0347		Shld. Spacer .625" I.D.
12	17123		Stabilizer Shaft Ass'y.	47	738-0550		Rear Hgt. Adj. Shaft
13	710-0118		Hex Bolt 5/16-18 x .75" Lg.	48	747-0557		Connecting Rod
15	710-0253		Hex Bolt 3/8-16 x 1" Lg.	49	747-0651		Deck Lift Handle
17	710-0778		Hex Wash. Hd. Scr. 1/4-20 x 1.5" Lg.	50	747-0690		J-Bolt 5.4" Lg.
19	710-0817		Hex Wash.-Tap Scr. 5/16-18 x 1.25" Lg.	51	750-0515		Spacer .511 I.D.
20	711-0198		Ferrule	52	750-0707		Spacer .885 I.D.
21	711-0753		Clevis Pin (Special)	53	736-0264		FI-Wash. 5/16" I.D.*
22	712-0267		Hex Nut 5/16-18 Thd.*	54	732-0531		Ext. Spring 22.05" Lg.
28	714-0507		Cotter Pin 3/32" Dia.	56	732-0575		Ext. Spring 15-5/8" Lg.
29	712-0287		Hex Nut 1/4-20 Thd.		732-0587		(32" Deck)
30	712-0798		Hex Nut 3/8-16 Thd.				Ext. Spring 17-3/4" Lg.
31	714-0101		Internal Cot. Pin 1/2" Dia.	57	17310		(38" Deck)
32	714-0145		Int. Cot. Pins 3/8" Dia.	58	710-0776		Spring Anchor
33	715-0114A		Spring Pin Spir. 1/4" Dia.				Hex Wash. Hd. AB-Tap Scr.
34	720-0223		Grip				1/4 x .62" Lg.
35	732-0430		Compression Spring 1.04"	59	710-0102		Hex Bolt 1/4-20 x 2.5" Lg.
36	732-0435		Switch Actuator	60	736-0176		FI-Wash. .25" I.D. x .93" O.D.
				61	750-0583		Spacer .255" I.D.
				62	712-0291		Hex L-Nut 1/4-20 Thd.

# Models 510 thru 551

**IMPORTANT:** A model label appears on the transaxle housing. If 717-0873A appears on your transaxle, use this illustrated parts list. For model 618-0026, refer to pages 34 & 35.





# Models 510 thru 551

## PARTS LIST FOR SINGLE SPEED TRANSAXLE LEFT HAND 717-0775

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	714-0129		#4 Hi-Pro Key 3/32 x 5/8" Dia.	35	750-0555		Spacer .53" O.D. x 3/8" Lg.†
2	716-0115		Snap Ring .625" Shaft	36	736-0329		L-Wash. 1/4" I.D.*†
3	710-0854		Hex Bolt 1/4-20 x 1.75" Lg.*	37	710-0886		Hex Bolt 1/4-20 x 1.50" Lg.
4	710-0809		Hex Tap Scr. 1/4-20 x 1.25" Lg.				(Grade 5)†
5	717-0764		Upper Housing	38	712-0335		Castle Nut 5/16-24 Thd.†
6	710-0642		Hex TT-Tap Scr. 1/4-20 x .75" Lg.	39	736-0159		Fl-Wash. .344" I.D. x .875" O.D.†
8	717-0634A	N	Input Shaft	40	717-0772		Actuating Arm†
9	721-0178		Square Seal 5/8" I.D.	41	717-0679		Brake Yoke†
10	736-0335		Thrust Washer 5/8" I.D. x 1.25" O.D.	42	717-0682		Puck Plate†
11	717-0633		Pinion Input 14T	43	717-0678		Brake Puck†
12	716-0108		Retaining Ring 7/16" Ext.	44	717-0765		Axle L.H. Ass'y.—Kit
13	717-0768		Drive Shaft	45	717-0677		Brake Disc†
14	741-0336		Flange Brg. 5/8" I.D. x 3/4" Lg.*	46	741-0337		Flange Bearing 5/8" I.D. x 15/16" Lg.
15	**		Fl-Wash. (See Below)	47	714-0161		Woodruff Key 3/16 x 5/8 HT
16	717-0757		Bevel Gear 42T	48	717-0754		Shift Fork Ass'y.
17	717-0667		Clutch Collar	49	741-0862		Ball Detent .250" Dia.
18	717-1020		Miter Gear 15T (H.D.)	50	732-0863		Spring Detent
19	716-0184	N	Retainer Ring	51	714-0169		#9 Hi-Pro Key 3/16" x 3/4" Dia. HT
20	741-0589		Thrust Bearing				Needle Brg. 5/8" I.D. x 1/2" Lg.
21	710-0862A		Pan Head Scr. 1/4-20 x .50" Lg. w/Patch	52	741-0335		Hex Bolt 1/4-20 x 1.00" Lg.
22	717-0766		Axle R.H. Ass'y.—Kit	53	710-0855		Fl-Wash. 5/8" I.D. x .030
23	741-0340		Sleeve Bearing 3/4" I.D. x 1.0" Lg.	54	736-0336		Actuating Pin 5/16" Dia.†
24	721-0179		Oil Seal 3/4" I.D.	55	741-0343		Hex Bolt 1/4-20 x 2.50" Lg.
25	741-0339		Flange Bearing 3/4" I.D. x 15/16" Lg.	56	710-0966		(Grade 5)†
26	736-0351		Fl-Wash. .760" I.D. x 1.5" O.D.	57	717-0767		Differential Gear 72T Ass'y. w/Bearing
27	711-0918	N	Cross Shaft	58	717-0681		Sq. Hd. Bolt 5/16-24 Thd.†
28	717-0777		Differential Housing Ass'y.	59	714-0111		Cotter Pin 3/32" Dia. x 1" Lg.†
29	—		Part of Ref. 28				Grease—Shell (10 oz.) CAPACITY
33	736-0351		Fl-Wash. .760" I.D. x 1.5" O.D.	—	737-0148		
34	717-0761A		Lower Housing				

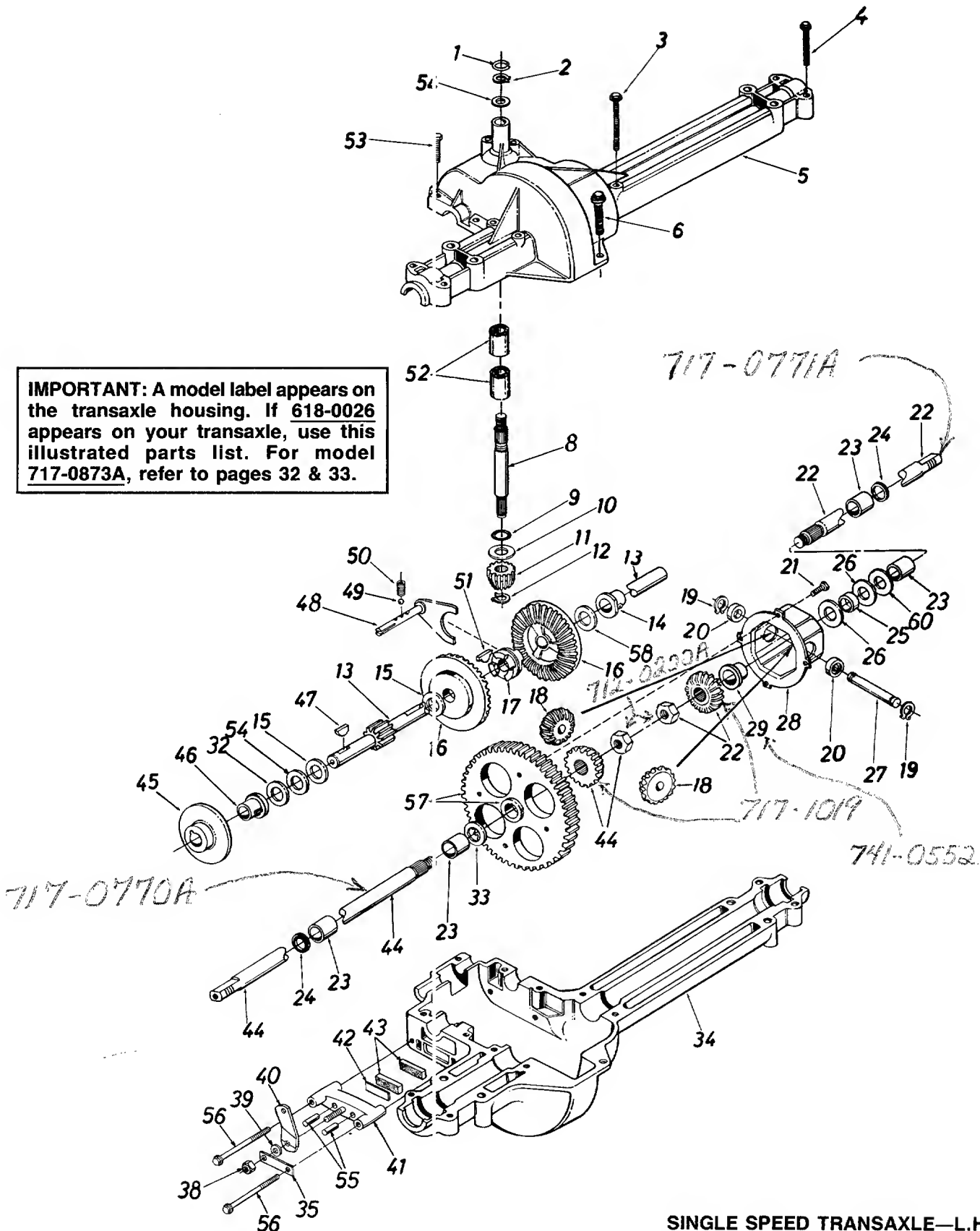
\*\*Ref. No. 15 736-0349 Fl-Wash. 5/8" I.D. x 1.0" O.D. x .020" Thk.  
736-0336 Fl-Wash. 5/8" I.D. x 1.0" O.D. x .030" Thk.  
736-0337 Fl-Wash. 5/8" I.D. x 1.0" O.D. x .040" Thk.

†Not Part of Transaxle Complete.

16 ozs.

# Models 510 thru 551

**IMPORTANT:** A model label appears on the transaxle housing. If 618-0026 appears on your transaxle, use this illustrated parts list. For model 717-0873A, refer to pages 32 & 33.



SINGLE SPEED TRANSAXLE—L.H.  
MODEL 618-0025, 6

SERVICE ONLY |  $\rightarrow$  34 LH W/O BRAKES  $\rightarrow$  0025 or 0026 LH W/ BRAKES

# Models 510 thru 551

## PARTS LIST FOR SINGLE SPEED TRANSAXLE LEFT HAND 618-0025

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	732-0614		Wire Ring	34	719-0303	N	Lower Housing
2	716-0108		Retaining—Ring	35	718-0150		Anti-Rotation Brkt.†
3	710-0854		Hex Bolt 1/4-20 x 1.75" Lg.*	38	712-0273		Hex Nut 5/16-24 Thd.†
4	710-0809		Hex Tap Scr. 1/4-20 x 1.25" Lg.	39	736-0371		Fl-Wash. .344" I.D. x .875" O.D.†
5	717-0764A		Upper Housing	40	717-0700		Actuating Arm†
6	710-0642		Hex TT-Tap Scr. 1/4-20 x .75" Lg.	41	761-0198	N	Brake Yoke†
8	711-0861	N	Input Shaft	42	717-0682		Puck Plate†
9	721-0178		Square Seal 5/8" I.D.	43	717-0678		Brake Puck†
10	736-0335		Thrust Washer 5/8" I.D. x 1.25" O.D.	44	717-0765		Axle L.H. Ass'y.
11	717-0633		Pinion Input 14T	45	717-0677		Brake Disc†
12	716-0171		Retaining Ring	46	741-0337		Flange Bearing 5/8" I.D. x 15/16" Lg.
13	717-0768		Drive Shaft	47	714-0161		Woodruff Key 3/16 x 5/8 HT
14	741-0336		Flange Brg. 5/8" I.D. x 3/4" Lg.*	48	717-0754		Shift Fork Ass'y.
15	736-0335		Fl-Wash. 5/8" I.D. x 1.25"	49	741-0862		Ball Detent .250" Dia.
16	717-0757		Bevel Gear 42T	50	732-0863		Spring Detent
17	717-0667		Clutch Collar	51	714-0169		#9 Hi-Pro Key 3/16" x 3/4" Dia. HT
18	717-1020		Miter Gear 15T (H.D.)	52	741-0335		Needle Brg. 5/8" I.D. x 1/2" Lg.
19	716-0184	N	Snap Ring	53	710-0855		Hex Bolt 1/4-20 x 1.00" Lg.
20	741-0589	N	Thrust Bearing	54	736-0349		Fl-Wash. 5/8" I.D. x 1" O.D. x .020 Thk.
21	710-0862A	N	Pan Head Scr. 1/4-20 x .50" Lg. w/Patch	55	741-0343		Actuating Pin 5/16" Dia.†
22	717-0766		Axle R.H. Ass'y.	56	710-1206	N	Hex Wash Hd. Self-Tap Scr. 1/4-20 Thd.†
23	741-0340		Sleeve Bearing 3/4" I.D. x 1.0" Lg.	57	717-0767		Differential Gear 72T Ass'y. w/Bearing
24	721-0179		Oil Seal 3/4" I.D.	58	736-0349		Fl-Wash. 5/8" I.D. x 1" O.D. x .020 Thk.
25	750-0827		Axle Spacer		736-0495		Thrust Wash. 5/8" I.D. x 1" O.D. x .025" Thk.
26	736-0445		Fl-Wash. .760" I.D. x 1.5" O.D.	60	**		Washer (See Below)
27	711-0918	N	Cross Shaft	—	737-0148		Grease—Shell (10 oz.)
28	717-1252	N	Differential Cam Ass'y.				
29	—		Part of Ref. 28				
32	**		Washer (See Below)				
33	736-0445		Fl-Wash. .760" I.D. x 1.5" O.D.				

\*\*Ref. No. 32 736-0495 Thrust Wash. 5/8" I.D. x 1" O.D. x .025" Thk.  
 736-0336 Fl-Wash. 5/8" I.D. x 1" O.D. x .030" Thk.  
 736-0494 Thrust Wash. 5/8" I.D. x 1" O.D. x .035" Thk.  
 736-0337 Fl-Wash. 5/8" I.D. x 1" O.D. x .040" Thk.

\*\*Ref. No. 60 736-0492 Fl-Wash. .76" I.D. x 1.5" O.D. x .010" Thk.  
 736-0493 Fl-Wash. .76" I.D. x 1.5" O.D. x .020" Thk.  
 736-0351 Fl-Wash. .76" I.D. x 1.5" O.D. x .030" Thk.  
 736-0445 Fl-Wash. .76" I.D. x 1.5" O.D. x .060" Thk.

†Not Part of Transaxle Complete.

**REPLACEMENT PARTS • P.O. BOX 360900 • CLEVELAND, OHIO 44136**